

COVENTRY
URBAN SANITARY DISTRICT.



Nineteenth Annual Report
OF THE
MEDICAL OFFICER OF HEALTH.

1893.

Coventry :
CURTIS AND BEAMISH, HERTFORD STREET.

By the order of the Local Government Board, dated March 23, 1891, Article 18, Section 14, it is prescribed that the Medical Officer of Health shall “prepare an Annual Report, to be made to the
“end of December in each year, comprising a summary of the
“action taken during the year for preventing the spread of disease,
“and an account of the sanitary state of his district generally at
“the end of the year. The report shall also contain an account
“of the enquiries which he has made as to conditions injurious to
“health existing in his district, and of the proceedings in which
“he has taken part or advised under the Public Health Act, 1875,
“so far as such proceedings relate to those conditions ; and also an
“account of the supervision exercised by him, or on his advice,
“for sanitary purposes over places and houses that the Sanitary
“Authorities have power to regulate, with the nature and results of
“any proceedings which may have been so required and taken in
“respect of the same during the year. It shall also record the
“action taken by him or on his advice, during the year, in regard
“to offensive trades, and to factories and workshops. The report
“shall also contain tabular statements (on forms to be supplied by
“the Local Government Board, or to the like effect) of the sickness
“and mortality within the district, classified according to diseases,
“ages, and localities.”

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CURTIS AND BEAMISH, HERTFORD STREET.

SANITARY COMMITTEE.



Chairman—COUNCILLOR LOUDON.

Vice-chairman—COUNCILLOR MORTON.

THE MAYOR.

ALDERMEN BANKS, FARISH, MARRIOTT, WORWOOD.

COUNCILLORS CALCOTT, WEBB FOWLER, HUGHES, CLEMENTS,
CORBETT, SMITH, WEBB.

TUESDAY—FIXED MEETINGS.

January	9	April	2	June	12	September	4
„	23	„	16	„	26	„	18
February	6	May	1	July	10	October	2
„	20	„	15	„	24	„	16
March	6	„	29	Aug.	7	„	30
„	20			„	21		

AT 12 O'CLOCK NOON.



CITY HOSPITAL COMMITTEE.



ALDERMAN FARISH.

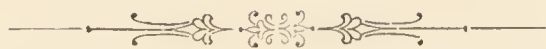
COUNCILLORS CALCOTT, HUGHES, LOUDON, MORTON,
WEBB, SMITH.

FIXED MEETINGS—EVERY ALTERNATE MONDAY,

Being the day preceding the fortnightly meeting of the Sanitary
Committee

AT 3 P.M., AT THE CITY HOSPITAL.

COVENTRY URBAN SANITARY AUTHORITY.



THE NINETEENTH ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH.



To the Mayor, Aldermen and Councillors of the County and
City of Coventry.

MR. MAYOR AND GENTLEMEN,

It becomes my duty to place before you my Annual Record of matters pertaining to the public health of your district for the year 1893, with a report of the proceedings taken by your Sanitary Committee and Officials of the Public Health Department, with a view to maintain and to improve the sanitary conditions of your City.

The record for the year, though not so favourable as that for 1892, still marks a progressive improvement, and as compared with the average of the past ten years, is in many respects very satisfactory.

The condition of the local industries was not so prosperous as might have been desired, and in some trades the earnings of the working classes were exceedingly poor. As a consequence of diminished earnings, we find a decrease in the number of marriages registered, and a decrease in the birth rate. These adverse conditions, however, were not so acute as to raise the death rate, which was still well below the average; neither did they make themselves manifest to the Guardians

of the Poor, to any considerable extent, as will be seen by the following returns, which I have obtained from Mr. Arch :—

The average amount expended in outdoor relief during						
the five years ending 1892, was						
						£2,492.
Amount for the year 1893						
						£2,313.
Average number of persons relieved out of doors during						
first period						
						2,035*
Ditto second period						
						2,220*
Average numbers of paupers in the Workhouse during						
first period						
						1,092*
During the second period						
						1,226*

* As the books are made up every six months, these figures represent nearly double the actual number of persons relieved.

The number of persons relieved out of doors exceeded the average by about 100, but the amount of money expended for their relief was less. The number of inmates of the Workhouse exceeded the average by about 70.

The year was one of continuous sunshine, with dry and warm weather, and this on the whole was favourable to a low death rate, but the high temperature in the summer produced an excessive fatality from infantile diarrhoea, and also raised the mortality in children under one year, and the zymotic death rate. The latter, though still low, would have been extremely small but for this cause.

The amount of zymotic disease generally was insignificant, small pox excepted, which was more prevalent than during any year since 1873. Although introduced several times, however, it never became epidemic. Only 30 cases occurred, with no death.

To provide for the contingency of an increase in the small pox outbreak, a new pavilion was erected in connection with your isolation hospital, and a new steam disinfecting apparatus was also provided.

Building operations progressed with tolerable activity, more especially of dwelling houses. The number of houses found to be vacant at Midsummer was not greater than two years ago, notwithstanding that 539 new houses have since been erected, so that there is satisfactory evidence of the growth of the district, and of the increase of the population.

COUNTY AND CITY OF COVENTRY.

The following Table records the vital statistics and general growth of the City, as far as information can be acquired.

Coventry was constituted a separate County by Charter of Henry VI., 1451.

Incorporated with the County of Warwick, 1842.

Constituted a separate County again, 1888.

Area = 3,126 acres.

Density of population = 17·5 per acre.

Year.	Houses Inhabited.	Vacant.	Building.	Population.	Mortality.	Zymotic Mortality.	Deaths under one year per 1000 born.	Birth Rate.
1586	.....	.....	.. ..	6,502	.....	.....	.....	.....
1643	.....	.....	.....	9,500	.....	.....	.....	.....
1723	1,934	.....	.....	.....	.....	.....	.....	.....
1748	2,066	.....	.....	12,817	32 ?	.....	.....	35 ?
1801	2,930	.....	.....	16,034	.....	.....	.....	.....
1811	3,448	*60	12	17,923	.....	.....	.....	.....
1821	3,729	*114	38	21,448	.....	.....	.....	.....
1831	5,444	*421	22	27,298	.....	.....	.....	.....
1841	6,531	*590	43	31,032	.....	.....	.....	.....
Ten Years' Average.								
1851	7,783	*151	111	36,812	27	.....	.....	.....
1861	8,991	*1,026	24	40,936	25	.....	.....	.....
1871	8,535	*816	4	37,670	22	.....	.....	.....
1881	9,223	*643	43	42,111	20	3·3	150	35·4
1891	11,496	*284	117	52,720	18·5	1·7	142	32
1884	10,180	92	153	44,500	19·3	2·3	166	34·8
1885	10,296	164	188	45,000	17·1	·78	114	34·2
1886	10,334	286	160	45,500	20·1	3·7	151	33
1887	10,470	349	199	46,500	17·1	1·4	131	30·8
1888	10,602	370	166	47,500	17·3	1·2	151	28·8
1889	10,988	215	93	48,500	18·8	2·3	148	30·9
1890	11,277	112	201	49,500	20·4	1·9	150	31·3
1891	11,496	*284	117	52,720	19·6	1·6	157	32·1
1892	11,789	114	92	54,000	15·4	·85	117	31·7
1893	11,989	165	79	54,700	17·1	1·1	160	29·9

* This number includes all business offices, whether in dwelling houses or factories, if not occupied on the night the Census was taken.

Population and Growth of the District.

The completion of the census returns, which took place during the year, enables a more accurate estimate of the present population to be made, and also many interesting and instructive comparisons to be made as to the past.

On the 1st of April, 1891, Coventry contained 52,274 persons, and from that date to midsummer, 1893, the natural increase (excess of births over deaths) amounted to 1,823, consequently, if this were the only factor to be considered, the population for last year might be taken as amounting to 54,547; but this method of estimation takes no account of the movements of the people into, or out of, the district. Some check is therefore required.

The following enumeration is based upon the number of houses known to have been inhabited at midsummer, 1893:—

Number of occupied houses at Census date ...	11,490
Built and occupied since April, 1891, up to midsummer, 1893	539
	12,029
Less houses permanently closed or demolished since Census to midsummer, 1893 ...	40
	11,989
Multiplied by the number of persons per house as shown to exist by Census	4.58
Population ...	54,910

The number of unoccupied houses as enumerated by the Census appears much larger than the number enumerated each year by your Inspectors, but it must be borne in mind that the Census returns include all offices of a business nature if not occupied at night, even when no dwelling exists in connection, as in the case of factories and workshops. Deducting these, I believe that the number of empty houses last year was about the same as for 1891, and I therefore have made no correction in this respect.

The following table will show the population, growth, and other conditions in the Wards.

WARDS.	Occupied Houses, 1891.	Vacant Houses, 1891.	Built since 1891.	Vacant Houses, 1893.	Demolished since 1891.	Population, 1891.	Population estimated, 1893.	Persons per House.	Death Rate.	Average Death Rate for past 3 years.
Gosford Street	2,876	32	193	23	10	12,823	13,637	4.45	14.59	15.1
Bishop Street...	2,742	24	171	15	0	12,311	13,077	4.48	15.98	16.7
Earl Street ...	2,182	67	122	42	6	10,376	10,911	4.70	13.28	14.7
White Friars'...	1,935	117	12	46	6	8,841	8,868	4.56	16.46	16.1
Spon Street ...	1,755	44	41	39	18	8,373	8,482	4.77	14.26	13.9
	11,490	284	539	165	40	52,724	54,975			

In rapidity of growth and amount of population Gosford Street Ward has gained the ascendancy, Bishop Street Ward, which was always the largest in the City, being now second, while the erection recently of so many dwellings upon the Poddycroft estate has considerably augmented the Earl Street population. Spon Street has still the smallest population notwithstanding the large area added recently to it. The older portions of the City contained in Earl Street and

White Friars' Wards had the largest proportion of unoccupied houses, both in 1891 and 1893. Many of these were closed as unfit for habitation, or were more or less ruinous. Of the 165 unoccupied houses last year one-half were rented at 5/- per week or under.

New Buildings.

The following plans for new buildings were presented to your Authority, and were passed after examination by your Building Surveyor, and Medical Officer when necessary :—

Houses.	Alterations and Additions.	Factories.	Church.	Miscellaneous.
206	74	14	1	4

The number of houses for which plans were presented was 54 more than in the former year.

BUILDINGS COMPLETED IN 1893.

Houses.	Alterations and Additions.	Factories.	Miscellaneous.
199	67	11	11

The New Building Bye-Laws have been efficiently applied and the character of the buildings and the drainage and sanitary arrangements thereof have been generally more satisfactory.

Many of the so-called temporary erections have been brought under the operation of the Bye-Laws, which is most desirable, as I have frequently pointed out that the erection of these structures at the rear of dwellings, upon the ground that has purposely been left open for ventilation, is most objectionable, and should be prevented.

Marriages.

The marriage rate, which is always low in Coventry, has fallen three in the last two years, and is now less than one-half that for England as a whole.

YEAR.	MARRIAGES.	RATE.	RATE FOR ENGLAND.
1891	541	10·1	15
1892	416	7·5	15·4
1893	403	7·3	Not yet published.

In a town so largely composed of the artizan class this reduction in the rate must be looked on as an indication that the condition as to earnings was not sufficiently encouraging to warrant such an increase in responsibilities as marriage involves.

Births.

The birth rate fell 1·8, and was lower than during any year of which I have record, 1888 excepted.

There were 1,632 births registered, and of these 41, or 2·5 per cent. were illegitimate.

The same marked difference was noticed between the two official parishes as I have reported before. The rate in Holy Trinity parish exceeding that for St. John's by 5·1 per 1,000.

	MALES.	FEMALES.	TOTAL.	RATE.	ENGLAND.
Holy Trinity Parish	510	473	988	31·4	
St. John's Parish ...	334	315	649	26·3	
TOTAL ...	844	783	1,632	29·9	30·8

Deaths.

An account of the deaths tabulated in the form required by the Local Government Board will be found at the end of this Report.

During the year 955 deaths were registered in the City, and of these 18 were persons who were not residents of the district, and have, therefore, been excluded in the calculation of the death rate. The annual rate of mortality amounted to 17·1, which, though slightly higher than the former year, is still 1·1 below the average for the past ten years; it is also 3·1 less than the average for large Urban districts, 2·1 less than the rate for England as a whole, and ·3 less than the average for Rural districts. In comparison with eight other representative Midland towns having conditions similar to Coventry it is lowest, except Northampton, which is just one decimal point less. The zymotic death rate was considerably less than in any of those towns, and the death rate amongst infants under one year was lower than any town, except Derby.

Town.	Population.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Deaths under one year per 1,000 Births.
Birmingham	487,897	32·6	21·5	3·	198
Nottingham	220,551	30·1	18·4	2·6	184
Leicester	184,547	32·7	19·9	3·9	200
Derby	97,341	32·	18·2	1·9	155
Wolverhampton	84,298	34·5	22·	3·3	206
Northampton	62,844	29·3	17·	2·4	173
West Bromwich	60,000	36·6	22·1	3·5	211
Coventry	54,700	29·9	17·1	1·1	160
Worcester	43,480	28·6	19·2	2·1	166
England	29,731,100	30·8	19·2	2·47	159
Urban populations generally ...	19,201,709		20·2		
Rural populations generally ...	10,529,391		17·4		

The meteorological conditions in the first ten months of the year were favourable to a low death rate, and the rate for that period amounted only to 15·4. The great mortality from diseases of the organs of respiration usual in the winter months was saved by the dry and warm condition of the atmosphere, from the group of diseases under this heading there were 100 fewer deaths than in the previous year. During the months of November and December, however, the mortality suddenly rose to double the normal figure, owing to the widespread and fatal prevalence of Epidemic Influenza, the rate for those two months amounted to 33. In 32 instances, influenza was given as causing death, either directly or by exciting other maladies that resulted in death, and doubtless in many other cases the disease existed, though not mentioned.

From phthisis and other tubercular diseases there were fewer deaths, but from heart affections there was an increased fatality.

The cause of death was certified in 875 instances by the medical attendant. Of the remaining 62 deaths, 41 were inquired into by the Coroner's court; 10 were registered after inquiry by the Coroner's officer, inquest being unnecessary; and in 11 instances upon the testimony of friends only. The registration of deaths without proper scientific evidence as to the cause opens so wide a door for crime that it ought to be prohibited as far as possible.

The publication in the census returns of the number of persons living at the various periods of life enables some interesting calculations in vital statistics to be made. The general statement that "the death

rate is 17 per 1,000 of the whole population " affords no evidence as to the rate at any particular period of life, and does not give the health officer the information that is often so valuable when an excessive death rate exists at some period of life, arising from preventable conditions operating at that period.

The following table is prepared to show the percentage of the population existing at certain periods, and also the death rate per 1,000 persons living at those periods. It applies to the five years only, nearest the census years of 1881 and 1891, as the population estimates during years further removed from the census are not sufficiently reliable.

Under 5 years.	5 to 20 years.	20 to 40 years.	40 to 60 years.	60 to 80 years.	Over 80.
5,552	13%	CENSUS, 1881. Populations living at various groups of ages.			
		12,147	7,517	3,234	217
		28%	17%	7%	6%
54	13%	Death-rate per 1,000 persons living at these ages.			
		4.6	7	16.5	71
		7	16.5	71	421
6,131	11%	CENSUS, 1891. Populations living at various groups of ages.			
		16,555	8,610	3,830	262
		30%	16%	7%	6%
53	11%	Death-rate per 1,000 persons living at these ages.			
		3.3	6.8	17.3	76
		6.8	17.3	76	202

The falling death rate that has been proceeding for several years is due in a great measure to the saving of young lives by the application of the laws of hygiene, consequently a greater number of persons reach maturity than formerly, and in an inquiry such as this, one would expect to find a larger proportion living at maturity, and this expectation is confirmed even in a comparison of two periods at so short an interval as ten years. In the first period children under 5 years formed 13 per cent. of the whole population, while in the latter they formed only 11 per cent. Between 20 and 40 the percentage living in the first period was 28, while in the latter it had increased to 30. This is a distinct advantage to the whole community, as it indicates that there is a larger proportion of persons living at the wage earning, and therefore most useful period of life. Turning to the mortality rates at each age period, it will be noticed what a wide difference there is. Childhood pays a fearfully heavy penalty. Out of every 1,000 children living under five years, 53 die annually. Having survived infancy, the rate of mortality suddenly drops to the minimum, and gradually rises, but it is not until 60 is reached that it is again as high as in childhood.

Comparing the first period with the second, it is satisfactory to find that the death rate has fallen at all ages up to 40. After that it is somewhat higher, which is natural, as the greater the proportion of people who survive to 40, the greater must be the mortality afterwards.

Infantile Mortality.

The decided improvement reported last year under this head was of short duration, the rate having increased again from 117 in 1892 to 160 in 1893. Although this rate is below that for any other town in the above table, with one exception, yet it is unsatisfactory that 16 per cent. of all children born should die during their first year, because this mortality is preventable, and because the application of the sanitary laws and the increase of education and intelligence has done but little to reduce it. The causes from which it arises are the progressive physical degeneration in the working class mother, consequent upon the artificial conditions of town life and its exigencies, the absence of the natural sustenance for the infant, early weaning, improper and unwholesome substitutes for the natural food, exposure to extremes of heat and cold, and general neglect.

Classifying the deaths roughly under the causes that are in a great measure avoidable, the following are the statistics for the past three years :—

	1891	1892	1893
Deaths under one year	268	200	262
Diseases of the chest, viz. : bronchitis and inflammation of the lungs, generally brought on by undue exposure to cold	73	40	32
Premature birth	36	25	52
Debility, marasmus & wasting diseases, frequently arising from improper feeding and neglect	35	20	35
Convulsions often due to similar causes	29	21	33
Diarrhœa and other gastric maladies due to errors of diet and to exposure to sun heat, and neglect generally ...	35	22	63

Under the first head will be found a considerable decrease in the mortality, as might be expected in a year characterised by such exceptional climatic conditions.

Under the second head there is a considerable increase.

The last three classes of deaths have largely increased, more especially infantile diarrhœa, which was very fatal. This one would naturally expect in the presence of such great heat, for it cannot be doubted that high temperature plays an important part in the production of this disease. When the mean daily temperature rises to, or exceeds 60°, it makes its appearance. Last year it commenced unusually early. The experience of the year coincides with that of former epidemics, and goes to prove that heat as a rule acts not directly on the infant, but through the medium of the food, which is generally of an artificial nature. Rarely does an infant fed on breast milk suffer, and then probably the cause is exposure to the direct rays of the sun.

The following is a record of the conditions in connection with the fatal cases that occurred :—

	DEATHS.
Infants fed wholly on breast milk	1
Fed on cows milk, in combination with other food	18
On artificial foods to the exclusion of milk ...	20
Mothers at work and away from their infants ...	6
Defects of drainage and other insanitary conditions in connection with homes	4

It would therefore appear that high temperature, acting upon milk or artificial food, probably by inducing conditions suitable to the growth of pathogenic organisms, more especially in insanitary, ill-ventilated, and over-heated homes, is the main cause of the disease.

It is only by the general and personal care exercised by the mother or attendant, particularly in the selection and preparation of food that this excessive mortality can be controlled, and unfortunately it is this personal care and intelligence that is lacking, and no sanitary authority can supply it, hence the difficulty of dealing with the subject and the absence of any progress.

Zymotic Disease.

The amount of Zymotic Disease was unusually small, 308 cases were notified under the Compulsory Notification Act, against 500 in 1892. Of these, 154 or nearly half were cases of Erysipelas, the great proportion of the latter were reported in the last two months of the year, and probably arose from the damp and cold conditions existing then.

All these cases were notified by the medical attendant, and although the head of the household in which a case of infectious disease takes place is equally required to notify, in only four instances were such notifications sent.

The Zymotic death rate was the lowest of all the above-mentioned Midland towns, it was below the average for Coventry for ten years, and 1·37 lower than that for England generally.

Compulsory Notification of Infectious Disease.

Certificates were received under this Act as follows :—

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Small Pox	8	1	1	5	6	9							30
Scarlet Fever	3	3	1	7		2	2	1	3	3	2	3	30
Diphtheria	1			1			1		2			1	6
Enteric Fever	4	6	6	5	4	1	1	4	3	3	3		40
Other Fevers	1	1						1	1	1			5
Erysipelas	12	10	6	7	5	5	18	8	10	26	23	15	145
Measles	4	6	2	1	1	3	2	2	2	3	3	10	39
Croup						1					2	1	4
Puerperal Fever	2			2			1		1	1		2	9
	35	27	16	28	16	21	25	16	22	37	33	32	308

It will be noticed that although the number of cases of Zymotic disease notified was smaller, yet there is a slight increase in the mortality. This arises from the fact that Infantile Diarrhœa was more fatal, but not being a disease that is notifiable under the Act, it does not appear in these columns.

Small Pox.

The general prevalence of small pox throughout the country, especially in the neighbouring midland towns, rendered it highly improbable that Coventry would escape, and during the first six months the disease was introduced into the City on several occasions ; at first into the Workhouse, and subsequently into various parts of the district. Thirty cases came to my knowledge, all with one exception being of a mild character, no fatality took place.

The table on the opposite page gives briefly the details of the information elicited in each instance.

The first nine cases occurred in the Workhouse, where the disease was introduced by a tramp on the 17th of January. Unfortunately the man was suffering from the disease in an obscure form, so that it was not recognised until several persons were exposed to infection, with the result that six inmates of the house subsequently developed small pox. A second tramp admitted on the 20th of January, and a third on the 12th of February, also developed small pox, but this ended the outbreak so far as the Workhouse was concerned.

Case No. 10 in the table was an isolated one. I could not discover the source of infection. No. 11 was infected from No. 10. The next five cases appeared to arise from one source of infection. No. 12 was a girl who must have been infected while in the General Hospital, as she had been in that Institution for three weeks, and fell with small pox the day after coming out. The infection seems to have been conveyed into the Hospital from a neighbouring public-house, where two girls had suffered from an illness thought at the time to be chicken pox, but a third girl who was visiting in the house suffered from a severe attack of small pox directly after returning to her home. Not having seen any of these three girls, and as the last case occurred after the girl had left this district I have not included them in this list. The next nine cases occurred in connection with a separate centre of infection, set up by the man, No. 17, who arrived in Coventry by train on the 14th of April, from Maidenhead. He went to lodge in a house in Gosford Street, containing a large family, as well as two other lodgers. He obtained work in a cycle factory, but four days after his arrival he fell ill, and consulted a chemist, who treated him, although ignorant of the nature of his ailment. After four days at home he returned to his work. No. 18 was a fellow lodger, and when taken ill he consulted the same chemist, by whom he also was treated, going daily to his work as a saddler, until his condition became so offensive that his landlady insisted on his seeing a doctor, and not till then was the disease recognised or notified. Subsequently four other persons in this and the adjoining house were infected, and three men who worked in the same factory as one of the inmates of the lodging house were also infected. The last five cases, Nos. 26 to 30, were of an extremely mild and doubtful character. Probably they were small pox, and seeing the opportunities that existed at the time for infection, it is probable that they contracted their illnesses from the above-mentioned source, though I could not determine it.

The steps taken to prevent the spread of the malady were as follows :—

The first and second tramps were isolated in the Workhouse Hospital, and all those inmates who had been exposed to infection were

SMALL POX.

No.	DATE.	SEX.	AGE.	RESIDENCE.	VACCINATION.	CHARACTER OF ATTACK.	ISOLATION.		
1	Jan. 17	M	21	Tramp ...	Infant, poor	Mild	Workhouse Hos.	4 weeks	Tramped from London.
2	" 20	M	32	" ...	"	"	"	"	" " Leicester.
3	" "	M	39	Workhouse Inmate	" 4 marks	"	"	"	Infected by No. 1.
4	" "	M	54	" "	"	"	"	"	"
5	" "	M	64	" "	Not known, no marks	"	"	"	"
6	" "	M	55	" "	Infant, 2 marks	"	"	"	"
7	" "	M	18	" "	"	"	"	"	"
8	" "	M	12	" "	" 1 mark	"	"	"	"
9	Feb. 12	M	26	Tramp ...	" 2 marks	"	City Hospital	27 days	Tramped from Northampton.
10	Mar. 17	F	12	8, Leigh Street	Unvaccinated	Severe confluent	"	81 "	Not known.
11	April 17	M	12	Vine Street	Infant Vacc.	Mild	"	33 "	Infected by No. 10. [pub. ho.
12	" 5	F	17	Ct. 29, Gosford St.	" 3 marks	"	None	...	Infected while in Hosp. from
13	" 17	F	11	" "	"	"	City Hospital	38 "	Infected by No. 12.
14	" 24	F	9	" "	" 4 marks	"	"	38 "	"
15	May 12	F	7	" "	" 2 marks	"	"	31 "	"
16	" 20	F	20	Freehold Street	"	"	"	44 "	"
17	April 20	M	20	103, Gosford Street	"	"	None	...	Came from Maidenhead by train 4 days prior to attack
18	May 13	M	28	"	" 2 marks	Mild, but eruption profuse	City Hospital	41 "	Infected by No. 17.
19	" 18	F	14	102, Gosford Street	" 4 marks	Mild	"	38 "	"
20	" 30	F	20	"	" 2 marks	"	"	17 "	"
21	" "	M	17	17, Chauntry Place	" 4 marks	"	"	16 "	Unknown.
22	June 5	M	14	103, Gosford Street	" 2 marks	"	"	22 "	Infected by No. 17.
23	" "	M	19	"	" 4 marks	"	"	23 "	"
24	" 15	M	31	Earlsdon	"	"	"	11 "	"
25	" "	M	31	Harnall Lane	"	"	"	31 "	"
26	" "	M	31	Brickkiln Lane	" 3 marks	"	"	24 "	"
27	" 16	F	9	Weston Street	Unvaccinated	"	"	33 "	" Nature of disease doubtful.
28	" "	F	2	"	"	"	"	26 "	"
29	" "	M	16	"	Infant, 4 marks	"	"	26 "	"
30	" "	M	17	Raglan Street	"	"	"	20 "	"

put in quarantine until the danger had passed, the six cases that resulted being isolated as each occurred. Bearing in mind the close proximity of the quarantine building to the main body of the Workhouse, it is very creditable to those in charge of the suspected persons that the outbreak was confined to such small limits. The last tramp was removed to your Hospital, as the accommodation at the Workhouse had become inadequate. All cases subsequently discovered in the district were at once removed to your Hospital, with the exception of two who had passed the infectious stage before coming to light.

Disinfection was carried out freely, both of houses and all articles exposed to the disease. Vaccination was also resorted to whenever it would be accepted. I vaccinated 10 persons, and re-vaccinated 70 who had been exposed. A list of persons who were known to have been exposed was kept, and they were retained in their homes so far as that could be effected, and visited daily until the danger had passed away.

There are certain points concerning this outbreak to which I would direct your attention. In the first place the active part played by the tramp community in disseminating the disease is powerfully in evidence. Small pox was introduced into the Workhouse in this way four times in as many months. In the case No. 9, the man was admitted in the evening. He made no complaint, and was put to sleep in the tramps' ward, with 16 other men. The following afternoon he appeared ill, and upon being examined by the doctor he was found to be suffering from small pox ; but the other 16 tramps in whose company he had slept had gone out to pursue their migrations, and possibly to take small pox into 16 other districts. In respect to the three other tramps, a somewhat similar occurrence took place.

Where the tramp stays at a common lodging house he is even more dangerous, as his disease is less likely to be recognised.

It is evident, therefore, that restrictions should be placed on the movements of these people when small pox is prevalent, if not at all times. The compulsory vaccination of all tramps would also do much to prevent their contracting and carrying the disease.

The danger of chemists undertaking the treatment of what may appear to them, slight cases of illness, is also demonstrated, in connection with cases Nos. 17 and 18. Had these men been sent to a doctor the disease would have been recognised, and further infection prevented. In the absence of this the outbreak did not come to light for a fortnight, and nine persons were infected, and of these three were heads of families and important workmen earning good wages, who were thus thrown out of employment for five or six weeks, causing considerable loss both to the men, their families, and their employers, as well as creating the additional danger of further spreading the disease.

Vaccination.

Lastly, as to Vaccination. Of the 29 cases, 26 had been vaccinated, but none re-vaccinated. All of these suffered but slightly, in one case only was the eruption at all profuse. Of the three unvaccinated persons two were children, aged two and five respectively. Although notified as suffering from small pox the real nature of the attack was doubtful. They were isolated on suspicion. The third, a girl of twelve, was a marked confluent case, and only recovered after an illness of nearly three months, and then in a frightfully disfigured condition. It is also

remarkable in connection with this patient, that she was removed from a block of 20 houses, with a population of 100 people. Excluding two very young infants, all these people were vaccinated, except this girl and one adult.

Many of the vaccinated cases were so mild and modified that they lost the characteristic features of small pox, there being little fever or feeling of illness, and the eruption being hardly noticeable, so that the sufferers went about freely and unsuspectingly throughout the most infectious period of the disease. Nos. 11, 14, 15, and probably two of the cases at the public house were of this nature. Such cases constitute a serious danger to the community which the Notification Act, or the vigilance of officials cannot always avert, and here the only safe-guard is the protection beforehand of the entire population by efficient vaccination. Were it not for the fact that the Coventry adult population is well protected in this respect I am quite sure the outbreak of last year would have been much more serious.

Infant vaccination has been largely neglected during the last two years, as the Guardians, by a resolution of the 21st of October, 1891, decided to disregard the compulsory clauses of the Vaccination Acts. The following returns of the Vaccination Officer will show the present condition of affairs in regard to this.

Year.	Births.	Deaths.	Unfit for Vaccination, etc.	Vaccinated.	Un-vaccinated.
1888	1418	158	47	1213	0
1889	1512	187	51	1273	0
1890	1544	182	30	1221	111
1891	1727	228	24	587	888
1892	1718	174	26	118	1400
1893	1630	193	28	105	1304
					3703

It is hardly likely that any quotations from the ever-increasing roll of facts that go to prove the efficacy of the protection afforded by the operation, would convert those who are opposed to it, but for the benefit of those who have an open mind I would like to quote the following experience recorded or published last year.

In Coventry the whole staff at the Hospital was effectually protected by re-vaccination. In the Hospital ships in the Thames the whole of the staff engaged in attending to small pox, consisting of 1,201 persons, during the years 1884 to 1892 were similarly protected, and only six of that large number contracted the disease, not one fatally. At Halifax last year the disease was epidemic, and the Medical Officer gives the following information in his report. The total number of cases admitted to hospital was 513. No case occurred in a child under five years who had been vaccinated in infancy, and no death took place under ten years, the total death rate in the vaccinated being only 1·8. Of the unvaccinated, 56·8 per cent. were under five years, and the death rate amounted to 40·9 per cent. of those attacked. In a badly-infected district the Public Vaccinator went from house to house, and offered vaccination free to all who would accept it. 769 persons availed themselves of its protection, and although 144 families were attacked in that district, the report says, "there was not one case in any house where vaccination had been accepted."

In the Leicester epidemic of last year 83 unvaccinated children under ten were attacked, and nine died, but there was not a single instance of a child under ten years who had been vaccinated contracting the disease, and of 155 vaccinated persons who did contract it, not one died. In the face of facts of this convincing description I must warn the Board of Guardians that in ignoring the Acts they are assuming a terrible responsibility, that will some day bring disease and death into many households. There are now more than 3,500 children in the City who are susceptible to small pox in its worst form, and who form a serious danger to the community at large. Many of these are unvaccinated, not from conscientious objection, but from carelessness, knowing that the Acts are in abeyance. It concerns your Authority because, though not controlling the administration of the Acts, the neglect of them will so far render the population susceptible, that the disease will become epidemic, and large sums will have to be spent by you, in providing separate hospital accommodation for the sufferers and for their maintenance.

Scarlet Fever.

The diminution of the prevalence of this most infectious disease in the district is remarkable. I give below the deaths recorded for the past twenty years, in five year periods. I may mention that no death has taken place from this cause since August, 1890.

				Deaths.
Five years ending	1878	..	...	233
„	„	1883	...	108
„	„	1888	...	69
„	„	1893	...	14

Last year 30 cases were notified, and of these 25 were removed to hospital for isolation. Every year confirms the experience that isolation in hospital is the only method of keeping the disease in check, especially in a population of the nature of Coventry.

Measles.

This disease also was much less prevalent. Only 39 cases were notified, with no death, against 305 cases and six deaths in 1892.

Enteric Fever.

Forty cases of fever were notified, and 10 of these were removed to hospital. There were nine deaths—two in the City Hospital, one in the General Hospital, one in the Workhouse, and five in their homes. The cases were of an isolated nature, no concentrated outbreak having taken place. Generally the malady was found in small, ill-ventilated, and back-to-back houses, especially where some sanitary defect existed.

For the detection of zymotic disease, and the direction of the measures necessary for the prevention of the same, I have made visits and enquiries into the following cases, and have advised and reported to the Sanitary Committee in connection therewith.

Small Pox	...	...	...	...	...	35
Scarlet Fever	...	...	...	...	...	20
Enteric Fever	...	...	...	...	...	40
Measles	...	...	...	...	...	22
Erysipelas	...	...	...	...	...	18
Puerperal Fever	...	...	...	...	...	8
Diphtheria	...	...	...	...	...	5

The usual precautions that have been reported to you on previous occasions were taken in all cases, consisting chiefly of the removal to hospital of the infected, the disinfection of houses and articles that had been exposed to infection, the free distribution of disinfectants the prevention of attendance at school of children from infected houses, or of adults at work where danger appeared probable from their doing so, and the removal of any insanitary defects that might be discovered, and such other measures as might appear necessary in each case.

The City Hospital.

Although the number of patients isolated was not large, yet the work done was of a most important character, as not only were Scarlet Fever and Enteric Fever kept in check by its influence, in isolating the infected, but the district was saved from an epidemic of small pox.

The following is an account of the patients isolated during the year :—

In Hospital Jan. 1st, 1893.				Admitted.	Recovered.	Died.
Scarlet Fever	...	6	...	25	35	0
Enteric Fever	...	4	...	10	12	2
Small Pox	...	0	...	20	20	0
Diphtheria	...	0	...	2	2	0
Suspicious Cases..	...	0	...	8	8	0
<hr/>				<hr/>	<hr/>	<hr/>
10				65 = 75	63	2
Average length of isolation for Small Pox cases						31 days.
Ditto	ditto	Scarlet Fever	...	...	...	53 days.
Ditto	ditto	ditto	...	...	...	57 days.

EXPENDITURE, 1893.

	£	s.	d.
Provisions	263	6	8
Salaries and Wages	185	4	8
Coals and Gas	85	9	6
Drapery and Ironmongery	27	18	3
Furniture	15	3	0
Medicine and Disinfectants	16	19	4
Telephone	10	4	3
Sundry Expenses	34	18	9
Cost of New Pavilion	554	9	6

Total ... £1193 13 11

The Question of providing separate Hospital Accommodation for the Isolation of Small Pox.

In May last, owing to the presence of small pox, and the apparent necessity for a quarantine building, I suggested that the old Iron Hospital should be used for that purpose. The Committee of the General Hospital, upon whose grounds it stood, objecting to its use while so situated, it was decided by your Committee to remove it to the grounds of the City Hospital, which operation it was believed could be carried out rapidly and inexpensively. Unfortunately this anticipation was found in practice to be wholly erroneous, as much time and considerable expenditure was necessary in re-erecting it, much of the structure having to be renewed. In re-erecting the structure, however,

precautions were taken to make the building a much more substantial and comfortable one than such structures generally are. Although the building was not required in connection with small pox, I anticipate that it will serve a useful purpose in the future as the necessity for a third pavilion has frequently been felt in former years. The removal and re-erection of the building cost £554 9s. 6d.

The Local Government Board has refused permission to borrow this sum, on the grounds that if used for small pox it might be dangerous to the neighbourhood, as in the experience of the Board that disease has frequently been known to spread to the surrounding inhabitants, when the hospital is situated in a crowded district, and also to infect persons who might be isolated in the other buildings on the same site. For these reasons the Board has been advising authorities to provide their districts with separate hospitals for the accommodation of small pox patients, in positions removed from all dwellings. There is no doubt as to the wisdom of the advice where many cases of small pox have to be dealt with, and the time may come when you will have to adopt it, especially if vaccination is abandoned. I have not, however, felt it necessary to recommend such a course yet, for the following reasons:—The expenditure would be considerable, and should not be lightly undertaken. During the last 22 years all cases of the small pox that occurred in the City have been treated on the present or adjoining sites, which are open, there being about 10 acres around the buildings that cannot be encroached on, so that no extension of the disease has ever occurred in the neighbourhood.

Should an outbreak of small pox take place at a time when the buildings were already occupied with some other disease, the situation would be embarrassing for the time, but it could be got over by the erection of tents or other temporary structures, and such a contingency has not occurred during the last 23 years.

Disinfecting Station.—The following work was done by the Inspector in charge of this department:—

Visits paid to houses where infectious disease				
existed or was suspected	...	...	...	1660
Patients removed to Hospital	...	...	...	65
Houses fumigated and disinfected	...	...	...	55
Disinfecting apparatus, number of times used	...	...	...	86
Articles disinfected	...	...	...	2405
Cabs disinfected	...	...	...	2

EXPENDITURE, 1893.

	£	s.	d.
Reports under the Compulsory Notification Act	34	10	0
Disinfectors' Salary	72	16	0
Horse Hire	16	7	6
Disinfectants	24	18	4
Gas for stove	2	15	1
Registrar's returns of Deaths	11	12	8
New Disinfecting Apparatus	418	0	3

Total ... £580 19 10

On the 31st of May, the Ransome's Gas Disinfecting Apparatus—which had been in use for 15 years—was accidentally destroyed by fire. A new Washington Lyons' Steam Disinfecting Apparatus was forthwith provided, the cost of which is stated above.

General Inspection of the District.

Besides a general inspection of the district and the supervision over the Inspectors in the performance of this work, I have made visits and inquiries into the following matters and reported on the same to your Committee :—

General nuisances injurious to health	...	...	60
Insanitary houses	...	...	75
Nuisances in connection with slaughter houses	...	...	58
Ditto dairies and cowsheds	...	...	3
Ditto the Workhouse	...	...	8
Ditto Lodging houses	...	...	1
Ditto Offensive trades	...	...	4

Your Sanitary Committee held 25 meetings at which 23 reports of mine were read, dealing with the subjects referred to, together with other matters.

The system by which the district is regularly and systematically inspected by your Sanitary Officials has been carried out with increased activity, abundant evidence of which will be found in the report of the Inspector of Nuisances herewith appended.

Condition of the Suburban Districts.

In my reports for 1891 and 1892 I had to direct your attention to the insanitary condition in which the newly-added areas were found when first inspected by your Officials. This has now been very much improved. The following work was done in those districts during the year :—

Red Lane.

Town water substituted for polluted well water—houses supplied, 89. Middens abolished and water closets substituted in connection with 125 houses. The public sewers in this district do not extend sufficiently far along the Stoney Stanton Road, so that there are 17 houses without any drainage accommodation, and the sewage is conducted into a ditch in a field in which the cows of a dairy farm are fed. The matter is one that requires attention

Summerby Row.

After the extensive outbreak of Enteric Fever that took place in these houses in the end of 1892 they were efficiently drained, the middens abolished, and slop water closets provided.

Radford.

Middens abolished and w.c.'s provided in connection with 34 houses. Town water supplied to 11 houses instead of polluted well water.

Earlsdon.

Middens abolished and w.c.'s provided in connection with 9 houses.

Freehold Street.

Town water supplied to 29 houses instead of polluted well water.

In the

Old Allesley Road

there are still 15 houses beyond the extremity of the town sewer, without any means of drainage.

Foleshill Sewage.

The discharge of sewage from the Foleshill Road and Lockhurst Lane districts into a brook that flows into your district, and passes through the City Hospital grounds, continued through the year, and became so offensive during the dry weather that I considered it necessary again to direct the attention of the Sanitary Committee to the matter, complaints were also received from the residents in the vicinity of the stream. The Foleshill Authority was communicated with on the subject, but nothing has been done to remedy the nuisance.

Refuse Disposal.

The general cleansing of ashpits and other refuse receptacles was efficiently carried out by the Surveyor's Staff. 14,404 loads of refuse matter were removed from the City and deposited on the Commons and other waste spaces around the district, there to create a nuisance offensive both to the nose and the eye.

The establishment of a refuse destructor was considered, but the subject was eventually dropped, and is now in abeyance. In the existence of a ready method of disposal of this refuse by incineration, the present condition of affairs is a disgrace to Coventry.

Registered Places.

There are 374 places registered by your Authority, and under constant supervision by your officials, consisting of—Common Lodging-houses, 6; Houses let out in Lodgings, 8; (let in 49 separate dwellings,) Bakehouses, 113; Dairies, 126; Cowsheds 61; Slaughter-houses, 60. These were regularly inspected, and, with the exception of the slaughter-houses, were all found in good condition.

Defective Slaughter-houses & Unsound Meat.

In the month of May I made a careful examination of the whole of the Slaughter-houses in the district, and reported as to their condition to the Sanitary Committee. I would quote the following passage from that report:—

“There are now 57 Slaughter-houses in use, and of these 41 must be described as decidedly bad in regard to their positions; that is, they are so situated, being closely surrounded by dwellings, that they must of necessity be a nuisance and injurious to health. In no less than 45 of them the byelaws were being violated in one form or another. In many cases the fasting pens are in the slaughtering compartment, or so closely connected that animals have to be slaughtered in sight of others waiting in the pens. Owing to the crowded situations, they cannot be properly ventilated, and in consequence of this and of other nuisances arising from the same cause, the atmosphere was frequently so foul that meat could not remain long in it without being contaminated and unfit for food. Unfortunately, in many cases these conditions are quite incapable of improvement.”

Unsound Meat.

It will be noticed in the Inspector's Report that the amount of diseased meat seized, and the number of prosecutions that have followed, is greater than has ever been experienced previously. Meat of the

worst description has been found in some of the registered Slaughter-houses. On this subject I have also had to report to your Committee. This most insanitary condition of things forces again upon your attention the necessity for the erection of a public abattoir, by which course more than one half of the present Slaughter-houses could be closed, by the terms under which they are registered. A Committee appointed last year to consider the question held four meetings, and several sites were examined, but no practical advance has been made. The subject has been before your notice for many years, and is now one of the most urgent with which you have to deal, from a sanitary point of view. I would therefore again press it upon your serious consideration.

Water Supply.

Bearing in mind the fact that the water supply is obtained from wells, and also the deficiency in the rainfall during the year, the amount of water available was more than might have been anticipated. This result, however, was only attainable by the process of pumping out the principal well to a depth of thirty feet, which in a town district is objectionable, as calculated to draw in impurities from the neighbourhood. Progress has been made with the new supply, which it is to be hoped will soon be completed, in order that this pumping may cease. The supply in some of the outlying districts was not sufficient, in consequence of the mains to those districts being too small. This is a subject that is now receiving the attention of the Waterworks Committee.

I have analysed the water on four occasions, and found it pure and free from contamination of any sort. I have also analysed 39 samples of water, principally from the suburban districts, and found 28 of them polluted and dangerous, and the wells have in consequence been closed. The public water supply has been extended to 337 houses and 282 w.c.'s.

Housing of the Working Classes Act.

Houses certified as unfit for habitation in 1891 and 1892, but not dealt with until 1893 :—

West Orchard, court 10 (two houses demolished).

Little Park street, No. 89 and 1, 2, and 3 in court 18 (four houses converted into two, ventilation improved, and generally repaired; now occupied).

Well Street, No. 25 (house reconstructed and ventilated, and improved; now occupied).

Grove Street, No. 3 (demolished).

Spon End, No. 13 (ventilated and cleansed; now occupied).

Spon End, Nos. 5, 6, 7, and 8 in court 1 (5 and 6 ventilated and repaired; now occupied. Nos. 7 and 8 re-constructed and made into one house; now occupied). Nos. 15 and 16 permanently closed.

Houses certified as unfit for habitation in 1893 :—

Gosford Street, 1 and 3 in court 40 (houses improved and repaired generally; now occupied).

Grey Friars' Lane, No. 3 in court 9 (improved, but not yet occupied).

Spon Street, four houses in court 10, not numbered (three houses permanently closed by order of the Court; one repaired and through ventilation effected, and re-opened).

Spon Street, Nos. 13, 14, 29, and 30 in Chapel Yard (reconstructed, four back to back houses being made into two; through ventilation effected; now occupied).

Palmer Lane, 13 rooms let in lodgings in court 3 (permanently closed by order of the Court; these have since been converted into rag stores).

West Orchard, Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, in court 8 (closed and demolished; factory being erected on the site).

Bailey Lane, 1 house at the rear of No. 45 (permanently closed).

SUMMARY.

Closed	...	...	...	...	34
Improved	...	...	...	...	14
Demolished	...	...	...	...	14

Obstructive Buildings.

Four houses in Court 3, Cow Lane. Certified as obstructive July 12th, 1892. Considerable delay has taken place in the negotiations with the owners as to the compensation they would accept for the demolition of these houses. This was finally arranged, and the matter is now awaiting the permission of the Local Government Board to borrow the money to complete the purchase.

Offensive Trades.

For a manufacturing centre Coventry is remarkably free from offensive trades. Cycle enamelling, cement making for cycle tyres, Dowson gas manufacturing, and fish frying cause the principal nuisances.

The sulphuretted hydrogen that escapes in connection with the manufacture and use of Dowson gas has occasionally created offence, but no proceedings were found necessary in any case.

The frying of fish in small ill-ventilated shops without proper apparatus gave rise to some trouble, and one offender was proceeded against and fined.

Sanitary State of the District generally at the end of the Year.

The condition of the district at the end of the year in some respects was not satisfactory. Epidemic influenza and other diseases of the organs of respiration, brought about by unfavourable conditions of climate, were fatally prevalent and caused a high death rate. This was also contributed to by whooping cough, many cases of which existed.

A limited outbreak of measles occurred in the last weeks of the year amongst children attending the Spon Street Infant School, which was closed in consequence.

These diseases, however, are most difficult of control, and do not form any indication of the existence of insanitary conditions. On the contrary, the City is in a better condition in this respect than it ever has been previously, the laws relating to Public Health are more efficiently administered, and the science of hygiene is more generally and effectually applied.

I remain, Mr. Mayor and Gentlemen,

Your obedient Servant,

MARK FENTON, M.D.,

MEDICAL OFFICER OF HEALTH.

March 2nd, 1894.

Meteorological Observations made at the City Hospital, Coventry, 1893.

Lat. 52° 24' 34" Long. 1° 30' 20" Height above mean sea Level 266 feet.

* Barometric readings are reduced to 32° and corrected to sea level.

† In estimating relative humidity perfectly dry air is represented by 0, and complete saturation by 100.

Records kept by W. H. CLARKE, Inspector.

Month.	Barometer, Mean of Pressure. 9 a.m. *	AIR TEMPERATURE.						Relative Humidity.	RAINFALL.	
		9 a.m.	Means of		Absolute Maximum and Minimum.		Date.		Total Fall.	Number of days rain fell.
			Maxi- mum.	Mini- mum.	Maxi- mum.	Date.				
JANUARY ...	30·04	34·5	40·0	30·3	54·0	31st	16·0	95%	0·67	20
FEBRUARY ...	29·63	39·5	45·7	34·6	57·0	19th	26·0	90%	3·07	22
MARCH ...	30·11	45·0	56·9	34·2	67·0	30th	21·0	71%	0·38	7
APRIL ...	30·15	49·7	64·4	39·5	80·0	20th	27·0	70%	0·355	5
MAY ...	30·03	56·0	68·0	45·0	78·0	4th 5th	37·0	69%	1·98	10
JUNE ...	29·99	61·1	74·1	49·9	87·0	18th	35·0	67%	0·99	8
JULY ...	29·88	63·2	73·2	54·0	88·0	7th	47·0	65%	1·845	22
AUGUST ...	29·94	67·0	75·0	54·0	92·0	18th	42·0	69%	1·76	14
SEPTEMBER ...	29·82	56·0	66·0	46·0	78·0	6th	34·0	77%	1·17	17
OCTOBER ...	29·84	49·0	58·0	42·0	68·0	16th	28·0	79%	3·085	22
NOVEMBER ...	29·98	39·8	47·7	35·0	59·0	3rd	24·0	80%	1·42	17
DECEMBER ...	29·91	38·6	46·0	33·6	55·0	13th	20·0	90%	2·165	21
TOTALS ...	35·932	59·94	71·50	49·81				922%	19·89	185
MEANS... ..	29·94	49·95	59·5	41·5	71·9	29·7		76%		

The mean temperature was in excess of that for 1892 during every month of the year. In April it was 9·5° higher, and for the whole year the excess was 4°. In regard to humidity, the atmosphere was 6·7 per cent. dryer than in 1892. There was a deficiency of 8·5" in the rainfall as compared with the average for 27 years, as measured by Mr. Gulson. For the years 1892 and 1893, there was a deficiency of 14·04", which represents six months average rainfall, or 896,000 tons of water per square mile.

ANNUAL RETURN
OF THE
INSPECTOR OF NUISANCES
FOR THE YEAR 1893.



To Dr. FENTON, Medical Officer of Health.

Sir,—

I herewith present the Annual Statement, showing particulars of the action taken in the suppression of nuisances and various improvements effected in the Sanitary Department, by and under your authority and direction during the year 1893.

	NO. OF CASES DEALT WITH.
Number of drains opened and cleansed from obstruction ...	95
„ drains provided with efficient traps	251
„ sink drains disconnected from sewer	33
„ new sinks and sink drains provided	15
„ new drains provided	63
„ houses cleansed and limewashed	250
„ workshops cleansed and limewashed	12
„ closets cleansed and limewashed	33
„ old and dilapidated houses repaired	27
„ cases of overcrowding remedied	4
„ offensive privies converted into water closets ...	76
„ offensive ashpits filled up and the floors paved	60
„ additional new water closets provided	9
„ foul and defective water closets repaired ...	336
„ urinals cleansed, repaired, or re-constructed ...	31
„ courts and back yards paved or repaired ...	92
„ premises from which fowls have been removed ..	11
„ nuisances from swine and swine styes abated ...	26
„ accumulations of wash, manure, &c., removed...	23
„ pan closets and containers abolished, and soil and ventilation pipes improved	9
„ miscellaneous sanitary improvements effected ...	51
„ smoke nuisances remedied	14
„ houses supplied with wholesome water... ..	129
TOTAL	1650

Common Lodging-houses.—There are six registered common lodging-houses, containing a total of 43 rooms, that are available for sleeping purposes, and for the maximum accommodation of 209 persons nightly.

The number of visits paid to these houses during the year by the Sanitary Officers was 131 at daytime, and 3 visits at midnight. No serious contravention of the byelaws has been reported during the year. No case of infectious disease has been reported from these houses, although considerable enquiries have been made.

Houses Let in Lodgings.—

Number of houses registered	8
Total number of rooms therein that are now let separately as dwellings	49
Number of visits paid	85
One house has been closed, as unfit for human habitation.	

Bakehouses.—

Total number on the register	113
Number of visits paid	252

They have been generally found in fair order; lime washing and cleansing was required in several instances, and no legal proceedings were required to be taken.

Swine Fever.—There has been no outbreak of swine fever in the city during the year, although several suspected cases have been investigated.

New Regulations came into force, November 1st, 1893.

The new order of the Board of Agriculture prescribes for giving immediate notice to the authorities of the existence of Swine Fever, Rules for Infected Places, Disposal of Carcases, Cleansing and Disinfecting, Granting of Licenses, &c.

Dairies, Cowsheds, and Milkshops.—There are 61 cowsheds and 126 dairies milkshops, and milk stores within the city.

Number of visits to cowsheds	202
Number of visits to dairies, milkshops ...	422

Breaches of the regulations were reported in several cases, and the offenders were cautioned. No further proceedings were required to be taken.

Slaughterhouses.—

Total number of slaughterhouses	60
„ „ inspections	655

Four instances of slaughtering being done upon unlicensed premises were reported. Magisterial proceedings were taken in two cases, and a conviction obtained, the other offenders were cautioned.

The general condition of the slaughterhouses has been improved during the year. Notices have been issued with reference to 41 slaughterhouses, calling upon the occupiers to conform to the regulations with respect to the condition of walls, floors, drainage, ventilation, proper vessels, &c., and 81 contraventions have been remedied. In three cases the offenders were summoned and were fined £5 18s. 6d., including costs, and the other two offenders were cautioned.

Inspection and Registration of Canal Boats.—

Number of boats inspected	...	...	...	112
„ visits	...	...	...	82
„ new boats registered	...	...	...	2
„ old boats registered	...	...	...	8
„ certificates renewed	...	...	...	7
„ boats now on the register...	...	...	...	213

During the past year the cabins of 112 boats have been visited, and were found occupied by 168 men, 40 women, and 43 children. The whole of the cabins were found to be fairly well kept, some particularly so.

Several contraventions of the Acts and regulations were discovered, and caution notes issued. Legal proceedings were taken in three cases and convictions obtained, the penalties and costs being £3 16s. 6d.

No case of infectious disease occurred on any canal boat within the city, and there has been no detention of boats for the purpose of cleansing and disinfecting.

On July 12th, H.M. Chief Inspector of Canal Boats examined the registers and other particulars in connection therewith, as to the observance of the Canal Boats Acts by the Coventry Registration Authority, and reported to the Local Government Board as to the thorough satisfactory manner in which he found the work of Canal Boat inspection, now carried out by this Authority.

Food Supply.—The various shops, stores, markets, &c., where food is prepared or exposed for sale have been frequently visited, and a quantity of unsound food has been surrendered.

There has been 1,382 lbs. of beef and 56 lbs. of mutton seized and destroyed as unfit for food, and magisterial proceedings were taken in four cases.

The carcases of 2 pigs, 2 sheep, 1 beast, were also destroyed as being unfit for food, and no legal proceedings were required to be taken.

Sale of Food and Drugs Act.—Forty-six samples of food and drugs were submitted to the Public Analyst, particulars of which will be found in his report.

Registered Places.—

Total number of registered places under supervision	...	...	...	...	374
Total number of visits paid	...	...	...	...	1765

Summary of Work done by Inspectors.—

Number of premises visited	...	...	...	9370
„ notices issued for the abatement of nuisances	...	...	...	1067
„ nuisances remaining unabated after expiration of notices	...	...	...	15
„ cases summoned	...	...	...	0

I remain, Sir,

Your obedient servant,

WILLIAM H. CLARKE,

Inspector of Nuisances.

Magisterial Proceedings.

<i>Complaint.</i>	<i>Fines.</i>	<i>Costs.</i>	<i>TOTAL.</i>
	£ s. d.	£ s. d.	£ s. d.
Houses unfit for habitation, closing order		0 14 0	0 14 0
Do. do. do. ...		1 11 0	1 11 0
Do. do. do. ...		0 18 0	0 18 0
Do. do. do. ...		1 0 0	1 0 0
Do. do. do. ...		0 14 0	0 14 0
Do. revoking closing order		0 9 0	0 9 0
Selling adulterated milk	0 10 0	0 14 6	1 4 6
Do. do.	5 0 0	1 13 6	6 13 6
Do. do.	5 0 0	1 13 6	6 13 6
Do. do.	1 0 0	0 13 6	1 13 6
Selling adulterated skim milk ...	2 0 0	1 19 6	3 19 6
Margarine not labelled	1 0 0	0 11 6	1 11 6
Selling adulterated whiskey ...	2 0 0	0 11 6	2 11 6
Do. do.	2 0 0	1 13 6	3 13 6
Breach Canal Boats Act	1 0 0	0 13 6	1 13 6
Do. do.	0 10 0	0 13 6	1 3 6
Do. do.	0 5 0	0 14 6	0 19 6
Unlicensed slaughtering	1 0 0	0 11 6	1 11 6
Do. do. dismissed	...	...	...
Breach Slaughterhouse Byelaws ...	0 5 0	0 12 6	0 17 6
Do. do.	0 5 0	0 12 6	0 17 6
Do. do.	0 5 0	0 12 6	0 17 6
Do. do.	1 0 0	0 14 6	1 14 6
Do. do.	1 0 0	0 11 6	1 11 6
Seizures Meat unfit for food ...	5 0 0	1 3 6	6 3 6
Do. do. dismissed	...	...	...
Do. do.	10 0 0	1 7 6	11 7 6
Do. do. notice of appeal	10 0 0	4 11 6	14 11 6
Do. do. appeal Quarter Sessions. Conviction upheld.			
Costs as taxed		37 11 10	37 11 10
Breach Nuisance Byelaws		0 11 0	0 11 0
Offensive trades nuisance, Frying fish		1 5 0	1 5 0
			£116 3 10

SALE OF FOOD AND DRUGS ACT, 1875.

Copy of the Reports of the Public Analyst for the City of Coventry upon the Articles analysed by him under the above Act for the year ending 31st December, 1893.

Article Submitted for Analysis.	State whether the Sample was submitted to the Analyst by an Officer acting under direction of a Local Authority under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis showing whether the Sample was Genuine or Adulterated, and if Adulterated, what were the nature and extent of the Adulterations.	The sum paid in respect of the Analysis.	Observations.
QUARTER ENDING 25th MARCH, 1893.				
Cocoa	Insp. W. H. Clarke, Coventry.	Genuine.	£1 1s. od.	
Tinned Meat	"	"	"	
Linseed Meal	"	"	"	
Sweet Spirit of Nitre	"	"	"	
Arrowroot	"	"	"	
Citric Acid	"	"	"	
Milk	"	"	"	
Milk	"	Adulterated with 8% added water.	"	Fined 10/- and Costs 14/6
QUARTER ENDING 24th JUNE, 1893.				
Milk	Insp. W. H. Clarke, Coventry.	Genuine.	£1 1s. od.	
Milk	"	"	"	
Milk	"	"	"	
Milk	"	"	"	
Milk	"	"	"	
Milk	"	Deficit of 18% natural fat	"	Fined £1 and Costs 13/6
Milk	"	Deficit of 30% natural fat	"	Fined £5 and Costs £1 13s. 6d.
Milk	"	Adulterated 12% added water.	"	Fined £5 and Costs £1 13s. 6d.
QUARTER ENDING 30th SEPTEMBER, 1893.				
Butter	Insp. W. H. Clarke, Coventry.	Genuine.	£1 1s. od.	
Lard	"	"	"	
Vinegar	"	"	"	
Ground Rice	"	"	"	
Whiskey	"	Adulterated with water, being 39.4 degrees under proof.	"	Fined £2 and Costs 11/6
Whiskey	"	Adulterated with water, being 42.7 degrees under proof.	"	Fined £2 and Costs £1 13s. 6d.
Milk	"	Genuine.	"	
Milk	"	"	"	
Butter	"	"	"	
Butter	"	Consisted entirely of fat foreign to butter.	"	Fined £1 and Costs 11/6

Article submitted for Analysis.	State whether the Sample was submitted to the Analyst by an Officer acting under direction of a Local Authority under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis showing whether the Sample was Genuine or Adulterated, and if Adulterated what were the nature and extent of the Adulterations.	The sum paid in respect of the Analysis.	Observations.
QUARTER ENDING 31st DECEMBER, 1893.				
Condensed Milk	Insp. W. H. Clarke, Coventry.	Genuine.	£1 1s. od.	
Comp. Tincture	"	"	"	
Camphor	"	"	"	
Spirits of Nitrous Ether	"	"	"	
Infants' Food	"	"	"	
Infants' Food	"	"	"	
Skim Milk	"	Adulterated 18% added water.	"	Fined £2 and Costs £1 19s. 6d.
Milk	"	Genuine.	"	
Milk	"	"	"	
Milk	"	"	"	
Butter	"	"	"	
Butter	"	"	"	
Butter	"	Consisted entirely of fat foreign to butter.	"	Proceedings pending.
Butter	"	Genuine.	"	
Milk	"	"	"	
Milk	"	Adulterated 5% added water and deficit 15% fat	"	Fined £1 and Costs £1 13s. 6d.
Milk	"	Genuine.	"	
Milk	"	"	"	
Milk	"	"	"	
Milk	"	"	"	

TABLE OF DEATHS DURING THE YEAR 1893, IN THE URBAN SANITARY DISTRICT OF LONDON.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as Separate Localities. (a)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							MORTALITY		
	At all ages. (b)	Under 1 year. (c)	1 and under 5. (d)	5 and under 15. (e)	15 and under 25. (f)	25 and under 65. (g)	65 and upwards (h)	(i)	Smallpox. 1	Scarlatina. 2
BISHOP STREET WARD...	209	72	12	4	9	40	72	{ Under 5 5 upwards	...	...
GOSFORD STREET WARD	199	66	13	6	10	47	57	{ Under 5 5 upwards	...	...
EARL STREET WARD ...	145	43	11	3	6	41	41	{ Under 5 5 upwards	...	...
WHITE FRIARS' WARD...	146	41	6	6	5	35	53	{ Under 5 5 upwards	...	...
SPON STREET WARD ...	121	30	6	5	13	29	38	{ Under 5 5 upwards	...	...
GENERAL HOSPITAL ...	45	3	1	8	6	21	6	{ Under 5 5 upwards	...	...
CITY HOSPITAL ...	2	...	...	...	1	1	..	{ Under 5 5 upwards	...	...
WORKHOUSE ...	89	7	1	0	4	31	46	{ Under 5 5 upwards	...	...
BOND'S HOSPITAL ...	4	...	...	...	...	...	4	{ Under 5 5 upwards	...	...
FORD'S HOSPITAL ...	3	...	...	...	...	...	3	{ Under 5 5 upwards	...	...
Totals ...	963	262	50	32	54	245	320	{ Under 5 5 upwards	...	...
THE SUBJOINED NUMBERS HAVE ALSO TO BE TAKEN INTO CONSIDERATION.										
Deaths occurring outside the district among persons belonging thereto... ..	...	...	...	...	...	...	...	{ Under 5 5 upwards	...	...
Deaths occurring within the district among persons not belonging thereto... ..	...	...	...	...	...	...	...	{ Under 5 5 upwards	...	...

VENTORY, CLASSIFIED ACCORDING TO DISEASES, AGES AND LOCALITIES.

CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.

FEVERS.				Cholera.	Erysipelas.	Measles.	Whooping Cough.	Diarrhoea and Dysentery.	Rheumatic Fever.	Ague.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	TOTAL.
Typhoid.	Continued	Relapsing	Puerperal													
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
	1	10	..	...	...	9	3	...	61	84
	1	...	...	...	...	...	...	...	9	33	23	3	55	125
	1	...	3	15	...	...	...	13	2	1	43	79
	1	...	3	...	...	...	...	...	12	26	15	6	57	120
	3	11	...	...	...	11	...	...	29	54
	4	...	...	...	...	...	...	...	12	21	11	1	42	91
	6	...	...	...	6	1	...	34	47
2	1	...	...	...	...	...	9	20	25	4	38	99
	1	...	...	2	...	...	...	9	1	...	23	36
2	10	20	14	2	37	85
	1	...	1	2	4
1	1	...	...	...	...	...	3	4	8	10	13	41

2	2
	1	...	...	7	8
1	1	...	...	...	...	...	...	...	15	8	3	...	53	81

	1	...	3	4

	1	...	...	...	2	3
	2	...	7	44	...	...	...	50	7	2	199	312
9	7	...	5	...	...	...	...	...	71	132	100	26	300	651

N JUDGING OF THE ABOVE RECORDS OF MORTALITY.

...
...
...	...	...	..	...	..	...	...	1	...	...	...	...	...	...	2	3
...	...	...	...	...	...	...	...	...	...	...	1	3	2	3	7	16

TABLE (B).

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH, during the year 1893, in the Urban Sanitary District of Coventry, classified according to DISEASES, AGES, and LOCALITIES.

NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	POPULATION AT ALL AGES.		Registered Births.	Aged under 5 or over 5. (c.)	NEW CASES OF SICKNESS IN EACH LOCALITY, COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH.								CASES REMOVED FROM THEIR HOMES FOR TREATMENT IN ISOLATION HOSPITAL.						
	Census 1891. (b.)	Estimated to middle of 1893. (c.)			Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	FEVERS.			8. Erysipelas.	9. Measles.	1. Smallpox.	2. Scarlatina.	3. Diphtheria.	FEVERS.		
									Enteric or Typhoid. 5.	9. Continued.	10. Puerperal.						4. Enteric or Typhoid.	5. Suspicious Cases Isolated.	
BISHOP STREET WARD..	12,311	13,077	..	{ Under 5 5 upwards	1	3	2	..	..	1	..	4	4	1	..	..	..	4. Enteric or Typhoid.	5. Suspicious Cases Isolated.
GOSFORD STREET WARD	12,823	13,637	..	{ Under 5 5 upwards	..	3	1	..	..	2	..	5	4	..	2	..	..	1	..
EARL STREET WARD ..	10,376	10,911	..	{ Under 5 5 upwards	1	3	..	2	2	7	1	20	9	1	1	..	..	3	2
WHITE FRIARS' WARD..	8,841	8,868	..	{ Under 5 5 upwards	..	..	..	..	..	1	..	2	2	1	1	..	..	1	..
SPON STREET WARD ..	8,373	8,482	..	{ Under 5 5 upwards	11	3	..	..	..	14	..	15	1	9	2	..	..	4	..
GENERAL HOSPITAL ..	..	..	..	{ Under 5 5 upwards	..	2	..	1	..	1	2	20	4	..	..	..	..	..	1
CITY HOSPITAL ..	..	..	..	{ Under 5 5 upwards	1	1	..	..	..	..	..	..	..	1	1	..	..	..	..
WORKHOUSE ..	..	..	..	{ Under 5 5 upwards	9	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals ..	52,724	54,975	1,632	{ Under 5 5 upwards	1	10	1	4	6	38	5	3	16	27	4	2	2	2	3

1893.

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH

FOR THE
BOROUGH OF CREWE,

BY
HERBERT JONES,

L.R.C.S.I., L.S.A., D.P.H., CAMB., &c.,

MEDICAL OFFICER OF HEALTH TO THE BOROUGH.

CREWE :
WILMOT EARDLEY, BOROUGH PRINTING OFFICES.

BOROUGH OF CREWE.

Health Committee of the Corporation of Crewe.

Chairman :

DR. WM. HODGSON, J.P., C.C.

THE MAYOR (COUNCILLOR C. H. PEDLEY).

ALDERMAN BRIGGS, J.P.

„ COTTERILL.

„ LATHAM.

„ MCNEILL, J.P.

„ PEDLEY, J.P.

„ WALLWORK, J.P.

COUNCILLOR AINSWORTH, J.P.

„ BOULTON.

„ COOK.

„ EAMES.

„ FEAR.

„ HEATH, J.P.

„ JERVIS.

„ JONES.

„ SMITH.

„ SWINTON, J.P.

„ TAYLOR.

Sanitary Inspector :

WM. URQUHART.

Population at Census, 1891	...	...	...	32,783
Estimated Population at the middle of 1893	...	...	...	35,338
Area in acres	...	...	...	2,193
Birth-rate per 1,000 living	...	...	...	34·7
Death-rate	...	...	...	19·6
Death-rate from Zymotic diseases	...	...	...	5·3
Deaths under 1 year to 1,000 births	...	...	...	171
Number of persons to the acre	...	...	...	15

MUNICIPAL OFFICES,

CREWE,

February 15th, 1894.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

In submitting to you my Report for the year ending December 31st, 1893, it will perhaps be convenient to mention first of all the Sanitary conditions existing in the Borough of a satisfactory nature, and at the same time to point out what matters appear to me to require your attention, entering into more detail later on in my Report.

Already a large portion of the town discharges its sewage into one or other of the main outfalls—northern or southern, which themselves are emptied on to the sewage farm at the pumping station, and the works which are now being proceeded with will connect also a large district in the newly-added area of Sydney and Coppenhall. There are still however populated parts of the town, the sewage from which has to be collected into cess-pools,

and I think that in these districts wherever practicable, a main sewer should be laid down. The ventilation of the sewers is carried out by means of street-level grids, and shafts run up the gable-ends of buildings, or in other suitable positions. These shafts have been found to work well, and should be certainly increased in number, for there is no doubt that air will come out at the ventilating manhole inlets, unless a sufficient number of shafts are provided to act as compensating outlets. The ventilating shaft which builders are now compelled to put up the side of every house, to ventilate the house drains, has very much to recommend it, and the same can be said of the soil-pipe carried above the eaves also to act as a drain-ventilator. With regard to this last however it must be noticed that there are some houses where they exist in which the calibre of the soil-pipe is diminished above its junction with the water closet pan; this should not be, but the shaft should be the same size its entire length, and even widened out if curving round a bend; there are other houses again where the end of the soil-pipe is immediately beneath a window, and this it is obvious is not desirable.

I have been glad to find that a large proportion of the houses in the town have the waste-pipes from the sink-stone, or lavatory, or bath disconnected from the drain, and that they discharge over a trapped gully. Every person should see that this is so in the house which he occupies. I have found not a few cases in which these waste-pipes have been connected directly with the drain, or even with the soil-pipe, which is itself unventilated.

About 2,500 houses in the town are provided with ashpails, which are emptied every fortnight, and in some cases weekly. In 1,500 other houses there are ashpits, emptied much less frequently. It would tend very considerably to increase the comfort and health of the occupiers of these 1,500 houses if they would supply themselves with an ashpail, and discontinue using the ashpit. The pails commonly used are made of galvanized iron, and cost about 12/-. There can be no objection raised to a wooden pail if it is preferred—a barrel sawn in two, tarred inside, and provided with handles at the side makes two excellent ashpails.

Of water closets we have two kinds—600 “tipplers,” and 1,300 of the ordinary type. Of these latter there are many of the “unitas” pattern, which cannot be spoken of too highly, the absence of woodwork enclosing the pan is a very great recommendation. The tip-pan closets, or “tipplers” where the waste water is used to automatically flush the drain, are found to work only fairly well. They have been used for the past ten or twelve years, and their chief drawback is the temptation they offer to throw down large substances which effectually block the drains. The London and North-Western Railway Company, upon whose property most of them are placed, lessen this evil by inflicting a fine upon those of their tenants whose drains become blocked. The Corporation has no power to fine the general inhabitants for the like offence.

With the extension of the sewerage works, I consider that we should aim at increasing the number of our water closets, with however the very strictest supervision from the Surveyor’s department, of house drains and connections. There are 1,800 houses with privy pails upon the Rochdale system, though here we have only a single set of pails, the contents being emptied directly into the night soil carts, and the pails are never washed. There are 120 houses with “fixed receptacles”; 200 with privy pits; and 3,000 with the old-fashioned privy. It is sufficient to say here that any one of these four methods in a large town is objectionable. I have dealt with the subject more in detail on page 36.

The Isolation Hospital for Small-pox has, during the year, proved once more how valuable such an Institution is, and I must strongly urge you to use the same means for stamping out other infectious diseases, by erecting a Sanatorium for Scarlet Fever, &c. (See page 26.)

The Disinfector, the purchase of which you have sanctioned, will, I am sure, prove of the greatest service to the town.

The slaughter houses in the town are fairly well conducted, though it is much to be regretted that the abattoir of the Cattle Market Company is not more used. The meat sold in the town is, as a rule, of good quality. (See page 31.)

Some of the dairies, a few of the bakehouses, and most of the lodging houses, are anything but what they should be.

The workshops I have not yet had time to inspect.

Of offensive trades there are no licencees in the town, and one tripe-boiler was told during the year to discontinue his trade in the Borough.

The paving of the footpaths has been much improved during the year. I find that the granolithic pavement renders the cellars of houses adjoining very much less damp than when the brick pavement was used.

The street gullies and the sewer manholes are cleaned out fortnightly, and I consider this work, together with the general scavenging of the roads, is executed in a very thorough and satisfactory manner. It is carried out in the Surveyor's department, and must have a distinct influence upon the health of the town.

Reviewing the sanitary condition of the Borough as a whole, there is much to point to of a gratifying character; in some matters we are very much ahead of towns considerably larger, on the other hand there is much to be done if we would keep our town in a healthy condition. Fortunately all that is required to be done, can be done, and at no very great cost. I must emphasize very strongly the necessity for a strict watch during their construction upon all buildings that are in the future erected. Most of our difficulties arise from buildings put up previously to some ten or twelve years since, when the town was rapidly growing, and it is most important that the careful supervision of the last few years should not be in the least slackened.

Area.

The Area of the Borough of Crewe when incorporated in 1877, was 1,336 acres. By Local Government Board Order No. P. 770, which was confirmed by Local Government Boards' Provisional Orders Confirmation (No. 11) Act, 1892, and came into operation on November 9th, 1892, the limits of the Borough were extended to include parts of the Civil Parishes of Church Coppenhall, Shavington with Gresty, and Wistaston. The total Area of the present Borough is 2,193 acres, apportioned to the different wards as follows:—

East ward	...	271	acres.
South „	...	712	„
West „	...	450	„
North „	...	760	„

Total for Borough of Crewe ... 2,193

Height above sea-level—

Sewage Farm	...	125	feet.
The Valley	...	145	„
Market Hall	...	179	„
Hightown	...	200	„

Nature of Sub-soil.

A Sub-soil of stiff clay extends over the whole of the Borough. Very exceptionally, and in some instances only for a few superficial yards is there a sandy Sub-soil.

Population.

The usual method adopted to estimate the Population of a district is to assume that the increase in any one year is the same as the average of the ten years between the two previous census examinations, and when a town increases steadily, the result is fairly accurate. In the case of the present Borough of Crewe, the area of which was extended in 1892, there is some difficulty in estimating the Population in this way, owing to the fact that the added portion was taken from, and was a part only of three distinct districts, Coppenhall, Shavington, and Wistaston. And although the Registrar-General in his census returns has revised

in a foot-note the figures for Crewe, giving the Population in 1891 of the present Borough as 32,783, yet it is not possible to ascertain the Population of the same area in 1881, and thus estimate the increase. At my request, therefore, the Sanitary Inspector took a census of the whole of the added area on September 29th, 1893, and at the same time he enumerated the number of inhabitants at Midsummer, 1893. (The statistics for the year are based upon the Population at the middle of that year).

The result of this census added to the estimated Population for the old Borough, gives the Population at Midsummer, 1893, for the entire town. In order to check the numbers thus obtained, I deducted the deaths that had taken place between the 1891 census and Midsummer, 1893, from the births registered during the same period, and added the difference to the figures of the 1891 census returns. As a still further check, I ascertained from the Borough Surveyor the number of new houses that had been erected, and from the Borough Rate Collector the number of empty houses at the middle of 1893. The estimated Population at the middle of the year is thus found to be 35,338.

Population of wards, 1893—

East ward	...	7,052.
South „	...	11,364.
West „	...	13,274.
North „	...	3,648.

Population of the Borough of Crewe—

Old Borough.				Extended Borough.	
1861	1871	1881	1891	1891	1893
8,159	17,810	24,371	28,761	32,783	35,338

Although the extended area came within the jurisdiction of the Crewe Sanitary Authority on November 9th, 1892, wherever I have given comparative figures, unless otherwise stated, those for 1893 relate to the extended Borough, those for the *whole* of 1892 and previous years to the old Borough.

TABLE 1.

		Inhabited houses.			Persons per house.		
		1881	1891	1893	1881	1891	1893
East ward	...	1,282	1,300	1,402	5·4	5·0	5·0
South „	...	1,420	1,947	2,246	5·3	5·0	5·0
West „	...	1,886	2,479	2,709	5·2	4·9	4·9
North „	...	...	...	768	...	...	4·7

TABLE 2.—Persons per acre, 1893—

East ward	...	25
South „	...	16
West „	...	29
North „	...	5
Crewe Borough		15

New Houses.

	1892	1893
Plans passed	...	171
Houses completed	143	142

House Accommodation.

According to the last census returns, 1891, there were in Crewe (Old Borough)—

13	houses of 1 room only.
45	„ „ 2 rooms „
81	„ „ 3 „ „
1451	„ „ 4 „ „
4221	„ „ more than 4 rooms.

5811 total number of houses in Crewe.

SEE ALSO TABLE C IN APPENDIX.

Age.

TABLE 3.—Shewing the number per 1,000 persons living at different age-periods at the last two censuses—

	Under 5 years	5 to 10 years	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	Over 65
England & Wales, 1881	136	120	108	98	90	146	113	83	59	47
Borough of Crewe, ,,	153	135	118	95	89	146	123	76	44	21
England & Wales, 1891	123	117	111	102	91	151	115	86	57	47
Borough of Crewe, ,,	133	123	118	102	97	150	111	85	51	30

It is noticeable in comparing these figures that the proportion of Ages in Crewe is more nearly approximating that of the whole country. If we divide a lifetime into the three stages, of childhood—from birth to 15 years, manhood—from 15 to 55 years, and old age—over 55 years, the comparison in 1891 becomes—

	Under 15 years	15 to 55 years	Over 55 years
England & Wales, 1891 ...	351	545	104
Borough of Crewe, ,, ...	374	545	81
Difference ...	23	...	23

The middle period shewing the same proportion to 1,000 persons both in Crewe and in England and Wales, the difference at one end of life being counterbalanced by the opposite difference at the other.

Births.

The number of Births registered during the year 1893, in Crewe, was 1,228, of which 596 were males, and 632 females, equal to a Birth-rate of 34·7 per 1,000 per annum. Of the 1,228 Births, 3·3 per cent. were illegitimate. The Birth-rate is below that of 1892, but above that of the five preceding years.

TABLE 4.—Comparing the actual number of Births and the Birth-rate with those of previous years—

		1886	1887	1888	1889	1890	1891	1892	1893
1st quarter ...	...	281	229	263	236	240	264	273	288
2nd „	...	270	252	237	239	230	256	262	342
3rd „	...	236	230	233	232	245	255	284	305
4th „	...	242	217	221	223	207	222	226	293
Whole year	...	1029	928	954	930	922	997	1045	1228
Birth-rate for whole year ...	...	38·4	34·0	34·6	33·1	32·4	33·8	35·6	34·7

Average Birth-rate for the eight years 34·6.

Deaths.

During the year 1893 there were registered in Crewe 694 Deaths, of which 386 were males and 308 females—equal to a Death-rate of 19·6 per 1,000 per annum. No adjustment has been made of Deaths occurring in Institutions within, or without the Borough. This rate is nearly three per 1,000 above the average Death-rate of the past eight years. The monthly Death-rate varied from 11·2 in September to as high as 26·4 in March. There were eight uncertified Deaths, equal to about 1·1 per cent. of the total Deaths.

The high Death-rate for the whole year is no doubt accounted for by the large number of Deaths from Zymotic diseases—especially diarrhoea—and the high Mortality in diseases of respiration (bronchitis, pneumonia, and pleurisy). The zymotic Death-rate for 1893 is 5·3, compared with 2·3 in 1892; the diarrhoea Death-rate is 2·5, compared with 0·8 in 1892; and the “respiratory” Death-rate is 4·4, compared with 3·2 in 1892.

TABLE 5.—Monthly Death-rate during 1893—

January	...	...	16·6
February	...	...	16·9
March	...	...	26·4
April	...	...	20·0
May ...	...	...	21·7
June ...	...	...	22·0
July ...	...	...	25·1
August	...	...	16·9
September	...	...	11·2
October	...	...	15·6
November	...	...	17·9
December	...	...	24·7

TABLE 6.—Comparing the actual number of Deaths, and the Death-rate with those of previous years—

	1886	1887	1888	1889	1890	1891	1892	1893
1st Quarter... ..	113	110	133	151	138	111	171	171
2nd „	85	102	85	114	77	127	143	193
3rd „	136	122	94	92	97	81	107	158
4th „	107	137	112	106	131	124	106	172
Whole year... ..	441	471	424	463	443	443	527	694
Death-rate for whole year	16·4	17·3	15·3	16·5	15·4	15·4	17·9	19·6

Average Death-rate for the eight years 16·7.

TABLE 7.—Apportioning the Deaths during 1893 to the wards, and giving the Death-rate and number of persons per acre.

	Number of Deaths.	Death- rate.	Persons per acre.
East ward ...	155	21·9	25
South ,, ...	196	17·2	16
West ,, ...	276	20·0	29
North ,, ...	67	18·1	5

TABLE 8.—Apportioning the Deaths during 1893 to the various age-periods—

	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 60	60 to 70	70 to 80	80 to 90	over 90 years	Total
East ward ..	43	34	7	1	32	18	13	7	..	155
South ,, ..	59	33	9	6	50	20	16	2	1	196
West ,, ..	88	51	18	9	61	25	18	6	..	276
North ,, ..	21	21	4	3	12	2	2	2	..	67
Borough of Crewe	211	139	38	19	155	65	49	17	1	694

It will be seen from the above Table that the Deaths of children under one year were roughly thirty per cent., and of all children under five years fifty per cent. of the entire number of Deaths. This high Death-rate among children, and which is six per cent. above the average (forty-four per cent.) for the last five years, is no doubt responsible in a great measure for the high Death-rate at all ages.

It should be noticed further that the Death-rate for children under one year was equal to 171 per 1,000 of the children born, which means that practically seventeen per cent. of the children born in Crewe in 1893 did not survive their first year.

Zymotic Diseases.

TABLE 9.—Number of deaths from the seven principal Zymotic Diseases during 1893, in the Borough of Crewe—

		Under 5 years	Over 5 years	TOTAL
Small-pox	...	...	...	...
Measles	...	36	1	37
Scarlet-fever	...	9	11	20
Diphtheria	...	12	7	19
Whooping Cough		14	1	15
Diarrhoea		79	10	89
Typhoid	...	1	9	10
Total	...	151	39	190

Death-rate per 1000 per annum, 5·3.

A careful comparison between Table 9, which refers to the whole of the year, and the last column of Table 11, referring only to the last four months, will shew that all the deaths from measles were during the first half of the year, that proportionately more deaths occurred from scarlet-fever and diarrhoea during the earlier part of the year, and fewer deaths proportionately during the same period from whooping cough and typhoid fever.

Expressed briefly there was prevalent during—

The whole year	...	...	Scarlet fever.
„ „	...	...	Diphtheria
The 1st and 2nd quarters	...		Measles
„ 2nd and 3rd	„	...	Diarrhoea
„ 3rd and 4th	„	...	Typhoid
„ 4th quarter		...	Whooping cough

TABLE 10.—Number of Deaths from the seven principal Zymotic Diseases, in the various wards during 1893—

	East	South	West	North
Small-pox ... ..	...	...	...	...
Measles	8	4	17	8
Scarlet Fever ...	9	3	6	2
Diphtheria	4	7	6	2
Whooping Cough ...	5	6	4	...
Diarrhoea	15	32	37	5
Typhoid ... ..	...	4	6	...
TOTAL...	41	56	76	17
Death-rate per 1,000 per annum ...	5·8	4·0	5·7	4·6

TABLE 11.—Number of *cases* of Zymotic Disease which have come to the knowledge of the Medical Officer of Health since September 1st, 1893, together with the number of Deaths during the same period—

	East	South	West	North	Boro' of Crewe	No. of Deaths.
Small-pox	2	...	...	...	2	...
Measles ... ..	...	2	1	...	3	...
Scarlet Fever ...	7	57	62	4	130	4
Diphtheria	1	3	2	1	7	6
Whooping Cough	2	21	35	1	59	11
Diarrhoea ... ..	...	...	...	...	...	25
Typhoid	2	8	10	1	21	6

The two cases of Small-pox occurred in January.

Small-pox.

Two cases of Small-pox occurred in the Borough in January, one in Beech Street, the second in New Street, two days after the first. In each instance the infection was traced from Warrington. Both patients were at once removed to the Small-pox Hospital, the bedding, &c., of the rooms occupied by the men before removal was destroyed, and their houses disinfected; they were discharged from the Hospital six weeks after being admitted. The total cost incurred by the Corporation in carrying out the isolation amounted to £101 12s. 8d., including £10 1s. 6d., given as compensation for clothing, bedding, &c., that was destroyed.

On April 5th, an engine-driver slept at the Enginemen's Barracks and was taken ill there, but worked his engine home to Carlisle, when he was found to be suffering from Small-pox. The L. & N.-W. Rly. Co.,—who provide these barracks for the convenience of those engine-drivers who finish their day's work at a distance from home—had the bedding, &c., destroyed, and the building disinfected and cleansed.

No other cases have occurred during the year.

VACCINATION.—It is probable that only two or three per cent. of the children born in Crewe are unvaccinated.

Measles.

This disease was very prevalent during the earlier half of the past year. No fewer than thirty-six deaths being recorded as due to it between January and the end of May, all of children under five years of age. During November and December a few isolated cases were reported to me, but no deaths occurred. In every case of Measles that I hear of, I address a circular-letter to the head teacher of the Day School, and to the superintendent of the Sunday School attended not only by the child affected, but by all the children of the household, urging that they should not be allowed to attend school until they can do so with safety to their companions. The rash of Measles usually appears upon the fourth day after a child begins to sicken, but for two and

perhaps three days before it makes its appearance, the patient is in a highly infectious condition, and may transmit the disease during that time to its companions, as readily as during the three weeks after the illness has begun. And as very many children are not kept at home until the rash comes out, the disease is spread through a school almost indefinitely. There is a very prevalent belief that Measles is not a fatal disease; this should be sufficiently disproved by the 36 deaths in Crewe during 1893.

The highest death-rate was in the north ward, the lowest in the south ward.

Death-rate per 1,000 per annum from Measles, locating the fatal cases in 1893—

	Boro' of Crewe	East ward	South ward	West ward	North ward
1893	1·0	1·1	·2	1·2	2·1
1892	·2	Market Street Wrexham Terr. Bridge Street Liverpool Terr. Moss Street Dorfold Street Lawrence „ Charles „ Victoria „	Wood Street South „ Edleston Rd. Walthall St.	Co-operative Street Meredith St. Chetwode St. Newdigate „ Beech Street Fleet Street Vere Street Alban Street Stafford St. Goddard St. Ford Lane	Henry Street Middlewich Street Audley Street Reid Street Remer Street

Scarlet Fever.

During the whole of 1893, Scarlet Fever has been present in the Borough. A noticeable characteristic of the epidemic being the high rate of mortality, and the number of adults who succumbed to the disease. Of the twenty deaths registered as due to this cause, five were of persons over 25 years of age. I have no means of knowing the number of cases in the town during the whole year, but for the last four months I recorded particulars of 130 cases. The houses where they existed were visited by the Sanitary Inspector or myself; a circular ¹ was left giving rules and general directions as to precautions to be taken, and instructions were given as to the general disinfection of the rooms at the close of the illness. This has usually been done by the Sanitary Inspector. Particulars have, in each case, been registered of the name, age, and address of the patient; date of attack, probable source of infection, milk supply, closet accommodation; and if a child, the parent's name, with the names of the day school and Sunday school attended by all the children of the household. A circular-letter was sent to the head teachers and superintendents in the same forms as the one referred to in the paragraph on measles. The infective period and the question of isolating are dealt with on page 27, under the heading of "Isolation Hospitals."

In no instance has milk formed a vehicle for carrying the contagion.

Death-rate per 1,000 per annum from Scarlet Fever, locating the fatal cases in 1893—

	Boro' of Crewe	East ward	South ward	West ward	North ward
1893	·5	1·2	·2	·4	·5
1892	·1	Thomas Street Sheppard ,, Bridge ,, Sandon ,, Wellington Sq. Charles Street Market Terrace	Mill Street Alton ,,	Meredith St. Beech Street Cemetery Rd. Dewes Street Elizabeth ,, Hulme ,,	M'dlewich St. Ford Road

¹ SEE APPENDIX.

Diphtheria.

Like scarlet fever, we have not been free from Diphtheria the whole year. Of the nineteen deaths registered as due to this cause, twelve were of children under five years of age. It will be noticed that the fatal cases from Diphtheria and from scarlet fever occurred in the same districts. In November, with the Sanitary Inspector, I examined the houses in Wellington Square, and found that two semi-detached villas had several faulty sanitary arrangements, while their two fellows were admirably arranged. Upon the defects being pointed out the owners (L. & N.-W. Rly. Co.) at once rectified them.

The diphtheritic poison is exceedingly tenacious of life. I have therefore caused a thorough examination to be made of the premises in which has occurred every case of Diphtheria that has come to my knowledge ; and if an ashpit or privy or cess-pool has been found, it has been at once cleared out. In two instances a fatal case occurred in the immediate neighbourhood of one that had proved fatal some months previously, and I found that the cess-pools, which had been emptied about the time of the occurrence of the first two, had not been again emptied until just before the second two patients were attacked ; the poison having thus probably been unearthed and disseminated.

Death-rate per 1,000 per annum from Diphtheria, locating the fatal cases in 1893—

	Boro' of Crewe	East ward	South ward	West ward	North ward
1893	·5	·1	·6	·5	·5
1892	·3	Wellington Square Charles St. Market Terr.	Gresty Road Mill Street Edleston Rd. Wistaston Road High Street	Castle Street Richard „ Beech „ West „ Casson „ Alexandra „ Underwood Lane	North Street

Whooping-cough.

During 1893 this disease was not as fatal as in 1892. It was present in the earliest months of 1893, and in the last quarter became epidemic, every district but the north ward being affected. I find that the head teachers of the day schools are very careful not to admit to their classes children they know to be suffering from Whooping-cough, and in order that the teachers in Sunday schools might be equally careful, I addressed, in December, a letter to all the Sunday school superintendents in the town, urging them to exclude from their schools all children they knew to be affected. I fear that parents treat the disease as one to be lightly thought of, and make no effort on the one hand to keep their children away from those infected, or on the other when infected from those who are well. The fact that fifteen deaths were registered as due to this cause during 1893, and twenty-three during 1892, should be sufficient evidence of its seriousness.

Death-rate per 1,000 per annum from Whooping-cough, locating the fatal cases in 1893—

	Boro' of Crewe	East ward	South ward	West ward	North ward
1893	·4	·7	·5	·2	...
1892	·8	Market St.	Chambers Street	Oakley St.	
		Martin St.	South „	Farrington Street	
		Manchester Street	Brown „	Ramsbottom Street	
		Lawrence St.	Cross „	Peel Street	
			Flag Lane Bridle Road	Jackson St.	

Diarrhœa.

Crewe suffered like almost every other town in the country from a severe epidemic of Diarrhœa, during the summer months of 1893. Of the 89 deaths registered as due to this cause, 79 were of children under five years, and of these 79 children, 64 were under one year.

The exceptionally hot and dry summer no doubt accounts for a great deal of this mortality; there are however other factors to consider which are dealt with on page 36, under the heading of "Removal of refuse."

Death-rate per 1,000 per annum from Diarrhœa—

	Borough of Crewe	East ward	South ward	West ward	North ward
1893	2·5	2·1	2·8	2·7	1·3
1892	·8				

In the east ward, where there were fifteen deaths, the fatal cases were very scattered, the groups of houses bounded by Prince Albert Street, Liverpool Street, Liverpool Terrace, and Forge Street, escaping with only three deaths, and in the group bounded by Market Terrace, Delamere Street, Gatefield Street, and Victoria Street, there were only two deaths.

In the south ward not half a dozen streets were without a death from the disease, and in the west ward fatal cases occurred in every second street. In the north ward there were deaths only in Henry Street, Middlewich Street, and Ridgway Street; the open, less-densely populated portion of Church Coppenhall escaping altogether.

Typhoid Fever.

In a more or less confined district, Typhoid fever has been present during the last six months of the year. Four deaths occurred in the south ward, and six in the west. I heard of two cases in the east ward, and one in the north, this latter being traced to infection from one in the east ward. It is highly probable that the first case in the Borough was imported from a sea-side resort.

I found upon first visiting the premises in which Typhoid cases existed, that no special precautions were taken with the patient's excreta, through which alone the infection is carried.

I obtained leave from the Health Committee to purchase some zinc pails with tightly-fitting covers, and one of these is now sent to every house that has no water closet, where we are informed there is a case of Typhoid fever. A layer of peat is placed in the pail, disinfectants are sent with it, and instructions given to use the disinfectants to the stools freely, and to keep the pail closed. The pail is exchanged weekly.

No cases of Typhoid fever were traced to the milk supply.

Death-rate per 1,000 per annum from Typhoid fever, locating the fatal cases in 1893—

	Borough of Crewe	East ward	South ward	West ward	North ward
1893	·2	...	·3	·4	...
1892	·1		Lockitt St. Edleston Rd.	Ludford St. West Street Rigg Street Underwood Lane	

Pneumonia.

During the last quarter of 1893, inflammation of the lungs assumed almost an epidemic character, especially among young children. The number of deaths registered as due to Pneumonia during the year was ninety, and forty-seven of the ninety were of children under five years of age, twenty-five of those again being under one year.

Death-rate per 1,000 per annum from Pneumonia—

	Borough of Crewe	East ward	South ward	West ward	North ward
1893	2·5	2·5	1·3	3·7	1·8
1892	1·2				

Influenza.

There were eight deaths registered as due to this cause during the year 1893, two in the second quarter, and six in the last, when the disease was very prevalent in every part of the town. In 1892 there were eleven deaths due to Influenza.

Death-rate per 1,000 per annum from Influenza—

	Borough of Crewe	East ward	South ward	West ward	North ward
1893	·2	·4	·1	·1	·2
1892	·3				

Phthisis.

The death-rate from Consumption shows little variation from previous years. The mortality has been highest in the west and north wards. I have drawn up a circular ¹ to be sent to those cases of Phthisis which come under my notice, pointing out the infectious character of the disease, and giving certain instructions relating more especially to the burning of the expectorated

¹ SEE APPENDIX.

matter, and of anything that may be soiled with expectoration. I propose when the Disinfecter is at work to have the clothing, bedding, and carpets from the rooms of Phthisical patients disinfected. It will be seen on referring to page 28 that I have advised you when adopting the Infectious Diseases (Notification) Act, to include Phthisis in the schedule of notifiable diseases.

Death-rate per 1,000 per annum from Phthisis—

	Borough of Crewe	East ward	South ward	West ward	North ward
1893	·9	·8	·6	1.1	1.0
1892	·8				

TABLE 12.—Vital statistics of Crewe Borough and of other Cheshire Boroughs.

Death-rate per 1,000 per annum—

Crewe	Birth- rate	All causes	Zymotic	Res- piratory	Phthisis	Diarrhoea	Per cent. of total deaths. Children under five years
1886	38.4	16.4	2.6	2.2	1.2	1.4	37.8
1887	34.0	17.3	3.2	2.8	1.4	·5	46.7
1888	34.6	15.3	1.5	3.7	·8	·3	...
1889	33.1	16.5	2.2	3.0	1.3	·5	45.3
1890	32.4	15.4	1.8	3.1	1.2	·5	39.5
1891	33.8	15.4	1.2	4.3	·8	·4	39.5
1892	35.6	17.9	2.3	3.2	·8	·8	45.0
1893	34.7	19.6	5.3	4.4	·9	2.5	50.7

Stalybridge Population 27,231.

1893	27.0	25.0	4.0	6.6	1.6	1.8	41.7
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Congleton Population 10,744.

1893	28.3	18.7	1.3	2.8	1.1	1.1	34.3
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Deaths in the Accident Hospital.

There were six deaths in the L. & N.-W. Rly. Co's. Hospital during 1893; five being employés, and one a passenger. One death was due to pneumonia, and five as the result of being run over by a train. An inquest was held in each case.

Inquests.

There were twenty-seven Inquests held during the year, of which nineteen were upon males and eight upon females. Five of the twenty-seven were upon children under one year.

TABLE 13.—Number of Inquests during the past eight years—

1886	...	24	1890	...	35
1887	...	21	1891	...	23
1888	...	14	1892	...	28
1889	...	26	1893	...	27

TABLE 14.—Causes of death as recorded at Coroner's Inquests—

Suicides	...	3	Convulsions	...	1
Run over by train	5		Meningitis	...	1
Fall down stairs	3		Heart disease	...	1
Accident in Works	2		Syncope	...	1
Fall in street	...	1	Pneumonia	...	1
Overlain	...	2	Pleurisy	...	1
Scalds	...	1	Natural causes	...	3
Alcohol	...	1			

It is very gratifying to find that there have been only two fatal accidents in the Works during the year.

Isolation Hospitals.

SMALL-POX.—There is at present a Small-pox Isolation Hospital—established in 1883—situated at the extremity of the West ward, and about half a mile from the main road, within which distance there are only three houses—a farm-house about one hundred yards, and two smaller houses a quarter of a mile off. It is capable of accommodating ten patients, and can be got ready for their reception in a few hours. A care-taker lives on the premises, and keeps the rooms, linen, &c., well-aired. When in use nurses are obtained temporarily. A horse-ambulance is kept in an out-building adjoining the Hospital for the removal of patients. The Medical and general care of the Hospital is under the superintendence of the Medical Officer of Health. Two cases of Small-pox have been treated during 1893, both in January, and after the isolation of these the disease did not spread in the town.

SCARLET FEVER, &c.—There is no Hospital in which to isolate infectious diseases other than Small-pox. A sub-committee has however the question of further provision under consideration. The success that has attended the prompt isolation of Small-pox in the Borough should be sufficient in itself to demonstrate the advantages and the efficiency of isolation. If any further evidence were necessary it would be found in the two following recent cases.

Mr. A. called on me in October and said that his child had Scarlet Fever, and as he had a large boarding school he was anxious to know what course he should take in the matter. I advised him to at once take a small unfurnished house, and to remove the child there for the six or seven weeks of its illness. The little patient was immediately taken away, and the room it had previously occupied thoroughly disinfected; the removal and disinfection being completed within seven hours of the Medical Attendant declaring the nature of the illness. *No further case of Scarlet Fever occurred in the house, nor has any other been traced to the first one.*

In strong contrast to the above is the second case—

B. C., a girl of sixteen, in service, was found to be suffering from Scarlet Fever; her mother went to nurse her at the house of the girl's employers, but at the end of a week took her to her own home, where there were already three younger children. *Within a week of returning home the mother had taken the disease and died of it.* And within a month all the children of the household were attacked, though happily they all recovered.

Is it too much to say that if B. C. had been isolated as efficiently as Mr. A.'s child, the four other cases and the one death would have been prevented?

The course which a case of Scarlet Fever of average severity takes is this—for the first ten days or a fortnight the patient is sufficiently ill to keep his bed, and although he is in an infectious condition, being too ill to mix with others, only a limited number of persons are exposed to the infection. For the next month or so, while the skin is peeling, the patient is well enough, or considers himself well enough to be amongst his companions, and it is during this period that the disease is usually spread by those infected. It will thus be seen how difficult it is to satisfactorily isolate a patient who is perhaps clamouring to go out, and who protests that he is quite well, and when as in many cases he is in a house with only two, or at the most, three bedrooms. And if the difficulties are great in a private house, how much greater must they be in one where a small business is carried on. It is not pleasant to reflect that the dressmaker or the tailor who send home the new clothes, or the laundress the clean linen, may introduce a fatal disease into a family of children, however careful the parents may be to guard them from other sources of infection.

The cost of a sanatorium would necessarily be in proportion to the use that was required to be made of it. It must not be forgotten that such an institution is intended to stop an epidemic; and if a disease of such an infectious nature as Small-pox can be checked as readily as was done in Crewe in January last, it is not too much to hope that an early knowledge of cases of Scarlet

Fever and their removal, either in the first, or even in the convalescent, though infective stage, would considerably lessen, even if it did not entirely put an end to the incidence of the disease in the Borough.

During the last four months of the year 130 cases of Scarlet Fever came to the knowledge of the Medical Officer of Health, three per cent. of which were fatal. Presuming that there were during the whole year the same proportion of deaths to cases, then there must have been at least 700 persons suffering from Scarlet Fever in Crewe Borough during 1893.

Notification of Infectious Diseases.

The natural complement of the provision of an Isolation Hospital is the adoption of the Infectious Diseases (Notification) Act. And I would ask you in the event of your deciding to provide the one to adopt the other. I would further advise that Phthisis (pulmonary consumption) be added to the schedule of notifiable diseases. I already get to know of a great many cases of infectious disease from the Relieving Officer and the School Attendance Officer, to whom I supply books of printed forms, which they fill up and transmit to me as occasion arises. I have learned in this way of over 200 cases during the last four months of the year, but in many instances they have only been reported some time after the beginning of the illness, and it has been too late to prevent the spread of the disease.

INFECTIOUS DISEASES (PREVENTION) ACT.—This Act was adopted in 1892.

Disinfection.

During the year 1893, seven tons of carbolic powder (containing 15 per cent. of carbolic acid) has been used by the Sanitary Department. The night-soil men are supplied practically with an unlimited quantity, and are instructed to use it freely. Any householder in the town may have a free supply when necessary, some is also sent to every Medical Practitioner in the Borough, to be distributed by him as he thinks fit. Since June, when a record was first kept, 288 packets have been given away.

DISINFECTOR.—In December, I recommended the Health Committee to erect a Steam Disinfector. The Corporation having sanctioned the purchase, we are now only waiting the consent of the Local Government Board to borrow the purchase money—£300—for twenty years, when the work will be immediately proceeded with. It is proposed to put up one of Manlove, Alliott & Fryer's, on ground immediately adjoining the sewage farm pumping station, from which steam will be supplied.

School Accommodation.

The public School Accommodation in the Borough is 7,008, appointed to the wards as follows—

		Per cent. of population.
East ward	... 1,889	... 26
South ward	... 1,455	... 13
West ward	... 2,814	... 21
North ward	... 850	... 23
Crewe Borough	7,008	... 20

I have visited nearly all the schools and have not found any noticeable overcrowding. The Managers of three schools contemplate increasing the accommodation.

I am much indebted to the Chairman and Members of the School Attendance Committee for their assistance in dealing with cases of illness. The School Attendance Officer has been exceptionally prompt and energetic in reporting to me any such cases that come under his notice. In this connection I should mention, too, the co-operation of the head teachers; in many instances they have given most valuable assistance with regard to cases of infectious disease.

The provision of play grounds or open spaces for the children of the town is of great importance. The vacant lands in the more crowded portions of the Borough are gradually being built upon, and it is very desirable that some of these should be secured before it is too late. This is surely a question in which private benevolence might be expected to do something.

Vans and Tents.

Only a few of these have been visited. I propose, in the present year, to have a regular inspection. In this connection, I should like to recommend that, in addition to the alterations to the urinal and water closet at the back of the Market Hall, sanctioned by the Corporation, a separate lock-up water closet should be provided for the use of the show people, who could obtain the key from the weighing machine office, or other suitable place. In conversation with some of these showmen, they have assured me that such would be appreciated, and not abused.

Canal Boats.

No Canal passes through the Borough.

Cellar Dwellings.

There are no Cellar Dwellings in the town.

Milk Shops and Dairies.

The Register of Milk Shops and Dairies is about to be revised. I have visited all the Dairies in the town, and consider that they are conducted satisfactorily on the whole.

FOOD AND DRUGS ACT.—This Act is administered by the Cheshire County Council.

Diseased Meat.

The Sanitary Inspector has kept a vigilant eye upon the meat and fish that has been offered for sale in the town. In July two cwt. of fish was seized, condemned by the Medical Officer of Health (Dr. Bailey), and removed to the sewage farm. In December a portion of a cheese exposed for sale in the Market was seized and condemned; the occupier of the stall subsequently cut open several other cheeses at the request of the Sanitary Inspector and Medical Officer of Health, who were, however, of opinion that it was not sufficiently bad to be condemned. Upon several occasions the Sanitary Inspector has drawn the attention of the Medical Officer of Health to meat of an indifferent character exposed for sale, the vendors of which have been warned that although it was not bad enough to warrant condemnation, yet they were steering very close indeed to the boundary dividing good meat from bad.

Slaughter-houses.

There are fourteen registered Slaughter-houses in the Borough—three in the east ward, five in the west ward, and six in the south ward. Section 169 of the Public Health Act, 1875, with which is incorporated Section 128 of the 'Towns' Improvements Clauses Act, 1847, enacts that an Urban Sanitary Authority shall make bye-laws for regulating the licensing, registering, and inspecting of Slaughter-houses. In July, 1877, the Local Government Board recommended that the following rules should influence an Urban Authority when considering the desirability of registering premises for use as a Slaughter-house.

- 1.—The premises to be erected, or to be used and occupied as a Slaughter-house, should not be within 100 feet of any dwelling-house; and the site should be such as to admit of free ventilation by direct communication with the external air on two sides, at least, of the Slaughter-house.
- 2.—Lairs for cattle in connexion with the Slaughter-house, should not be within 100 feet of a dwelling-house.
- 3.—The Slaughter-house should not, in any part, be below the surface of the adjoining ground.
- 4.—The approach to the Slaughter-house should not be on an incline of more than one in four, and should not be through any dwelling-house or shop.
- 5.—No room or loft should be constructed over the Slaughter-house.
- 6.—The Slaughter-house should be provided with an adequate tank, or other proper receptacle for water, so placed that the bottom shall not be less than six feet above the level of the floor of the Slaughter-house.
- 7.—The Slaughter-house should be provided with means of thorough ventilation.

8.—The Slaughter-house should be well paved with asphalte or concrete, and laid with proper slope and channel towards a gully, which should be properly trapped and covered with a grating, the bars of which should not be more than three-eighths of an inch apart.

Provision for the effectual drainage of the Slaughter-house should be made.

9.—The surface of the walls of the interior of the Slaughter-house should be covered with hard, smooth, impervious material, to a sufficient height.

10.—No water closet, privy, or cess-pool should be constructed within the Slaughter-house.

There should be no direct communication between the Slaughter-house and any stable, water closet, privy or cess-pool.

11.—Every lair for cattle in connection with the Slaughter-house should be properly paved, drained, and ventilated. No habitable room should be constructed over any lair.

Not one of the fourteen Slaughter-houses in the Borough fulfil entirely these requirements—though it is only right to state that, with two exceptions, they were registered previous to the issue of this memorandum, and these two are not only among the best conducted, but they fulfil the requirements very nearly indeed.

1.—Only two Slaughter-houses are more than 100 feet from a dwelling-house.

2.—Two only, have the lairs for cattle within 100 feet of a dwelling-house.

5.—One has a loft above the building.

6.—In none, is there a tank, as required under this rule.

8.—In eight, the floor is paved with bricks, in two with flags, and in only four with concrete.

9.—In five, is the wall inside covered to a sufficient height with a hard impervious material.

Early in October, I visited all the slaughter-houses, and after noting the bye-laws that were being transgressed, I sent a copy to each occupier, with a letter calling attention to the special bye-law that was not being obeyed. Several of the butchers at once complied, others required a second and a third reminder, and it was necessary for the Town Clerk to write to three, intimating that proceedings would be taken, unless they carried out the bye-law requiring them to provide a suitable receptacle, with a closely-fitting cover for the removal of offal.

With, perhaps, one or two exceptions, all the butchers seem anxious to carry out the bye-laws regulating their occupation. These bye-laws are not particularly exacting, nothing more indeed than the Manager of any well-regulated establishment would voluntarily enforce. It must not be forgotten that the very nearness of many of these buildings to the dwelling-houses renders it absolutely essential that everything shall be done to make them as little obnoxious as possible. I have no wish to appear to harras those who are engaged either in this or any other trade, but I shall have no hesitation in asking you to assist me in carrying out your own regulations to the letter.

Bakehouses.

There are thirteen registered Bakehouses in the Borough, three in the east ward, two in the south ward, and eight in the west ward. In four of the thirteen, the ovens are stoked from the outside, and this must very considerably lessen the amount of dust actually in the bakehouses, in some of which the coal lies in an uncovered heap, allowing the coal-dust to blow into the flour bins or even on to the bread itself. In one building I found an uncovered flour bin, and in another instance there was a w.c. leading into the Bakehouse, but at my suggestion it was removed. There are four Bakehouses where the arrangements are admirable in every way.

Factories and Workshops.

It is the duty of the Medical Officer of Health to visit all Factories and to take cognizance of the sanitary arrangements, and in Workshops he has to deal also with the question of cubic space in relation to the number of persons employed. In addition to the L. & N.-W. Rly. Co's. Works, there are some sixty Factories and Workshops in Crewe, all of which I propose to visit periodically during the present year.

Offensive Trades.

Bye-laws were adopted by the Sanitary Authority in 1883, with respect to the trade of a tripe-boiler. Although application has frequently been made for consent to establish this trade in the town, the Sanitary Authority has always refused to give such consent. One man has been carrying on the trade for some twenty-five years, his premises being situated partly in the old Borough, and partly in the adjoining district. Since November, 1892, however, when the Borough boundaries were extended, the whole of the premises have been in the Borough. In October, 1893, notice was sent to him, calling upon him to give up his business within three months, a like notice being served upon a man carrying on the trade of a gut-scraper.

Common Lodging-houses.

There are in the Borough five registered Common Lodging-houses,—two in the west ward, and three in the south ward; the maximum number of lodgers that can be taken is eighty-one—forty and forty-one respectively. During the year the registered keeper of a sixth house having been convicted before the Magistrates his license was cancelled, and the house, which accommodates twenty-four lodgers, has not yet had another keeper licensed. In the five houses there are in the aggregate twenty rooms occupied by lodgers, the average amount of air space per head is 413 cubic feet. The statutory allowance is 240 feet, to which in several instances we go perilously near.

In eight rooms the average space per head is under 300 feet.

„ two	„	„	„	„	between 300 & 400 ft.
„ six	„	„	„	„	400 & 500 ft.
„ one	„	„	„	„	500 & 600 ft.
„ three	„	„	„	„	700 & 800 ft.

There is an evident disposition upon the part of the keepers to carry out the bye-laws to the best of their ability, but with one exception they by no means come up to the standard we would wish to see. The low rents that are charged, 3½d. and 4d. per bed per night, make it almost impossible for them to do more than what the bye-laws compel them to do.

When we remember how readily infectious disease, especially small-pox, may be spread by means of these Lodging-houses, it is important that we should go very much further than our strict statutory obligations.

Elizabeth Gaffney, of 60, Nantwich Road, was twice fined 5/- and costs for refusing admission to her house to the Sanitary Inspector. Since then I have inspected the house and found it very well conducted.

There have been no cases of infectious disease reported by the keepers in accordance with bye-law No. 18.

I have caused to be placed in each room the schedule stating the maximum number of lodgers who may occupy that room, in accordance with bye-law No. 23.

Houses let in Lodgings.

The model bye-laws with respect to Houses let in Lodgings were adopted by the Corporation in 1877.

Water.

No complaints have been made of the quality of the Water supplied to the town from the artesian wells at Whitmore, though in one or two instances it has been reported that the pressure was not so great as it should be. I have not yet had an opportunity of examining the Water chemically. The laboratory which you

have been good enough to provide for me is now completed, so that I hope to do so in the current year. There are still, I believe, a few wells in the town, the water of which I intend to examine ; it is not used for drinking purposes.

The Water-works are the property of the L. & N.-W. Rly. Co., who supply the water by meter to the Corporation, the Corporation distributing it, and charging a water-rate to consumers. There are some 700 houses owned by the Railway Company who are supplied direct from the Company ; it is a little difficult to estimate, therefore, the amount of Water consumed. It is probable that it is not more than ten gallons per head of the population daily.

Ashpits and Refuse Removal.

We have divided among the 7,000 houses in the Borough, approximately—

7,000	{	1,300	water closets.	}	7,000
		580	tippler closets.		
		1,800	privy pails.		
		120	fixed receptacles.		
		200	privy pits.		
		3,000	mixens.		
		1,500	dry ashpits.		
		2,500	ashpails.		

One of the most universally recognized canons of sanitation is, that all refuse—whether excremental, household, or trade refuse—should be removed as speedily as possible from the dwellings of the inhabitants. Our 1,880 water closets, and our 2,500 ashpails carry out this law as accurately, perhaps, as need be, and our 1,800 privy pails very nearly. But the dry ashpits, the mixens, the cess-pools, and the fixed receptacles are absolutely opposed to the requirements, and no doubt took an active part during the summer months in the production of Infantile Diarrhœa.

The fixed receptacle has nothing to recommend it. It is practically a small cess-pool, placed immediately under the privy seat ; the contents being laded out every few weeks, and carted away.

The privy pit can only be allowed in a sparsely-populated district, where its contents can be frequently and regularly put upon the adjacent land. Even then, it is necessary that it should be thoroughly well-made with cemented floor and sides; that there should be no overflow pipe, or outlet from it, and that it should be properly ventilated.

The 3,000 mixens, or middens present a more serious obstacle to be dealt with than the above systems. A properly-constructed mixen, with the floor well made, and not below the level of the ground, with the seat of the privy hinged, that fine ashes may be thrown upon the excrement; or, with an admirable arrangement for screening the ashes behind the pit of the privy—and which has long been advocated by your Borough Surveyor—cannot be taken exception to by anyone, *that is, if it is properly used*. It has been found however next to impossible to prevail upon occupiers to use the mixen as it should be used. Circulars have been issued, urging them to put their ashes *upon* the excrement, and not merely behind; but so little attention do they pay to them that the ashpit emptiers, in many cases, take the top of the mixen contents away in the day time, in order to relieve the night men. Handbills too, have been distributed to every house in the town, pointing out the danger to health, caused by emptying water, or slops upon the ashpits or mixens; but the practice is still carried on.

During the last eleven years notices have been served under the 36th section of the Public Health Act, 1875, for the reconstruction of no less than 2,460 privies and ashpits; 350 of these were served last year. It seems a great pity that owners should be asked to re-construct upon a system which we are not satisfied is the best that can be adopted. Wherever it has been at all possible I have always very strongly urged upon those who are called upon to re-construct, to do away with their mixen and to provide an ashpail. If it is conceded that the mixens should be removed, there will no doubt be some difference of opinion as to what system should take its place. Whether privy pails or water closets should be substituted. The cost to the owner of providing a pail is about half that of putting in a water closet.

In considering the cost however it must be remembered that a privy pail has to be renewed every five years, and that even with the greatest care there must be some damage done to a structure that has a heavy pail taken out and replaced fifty-two times a year.

It may be stated here that the average amount of sewage pumped daily is now a million gallons. If every house in the town had a water closet, allowing fifteen gallons per day from each house, the additional quantity of sewage to be pumped would amount to only 75,000 gallons daily. The cost of water to each water closet is about 3/- per annum. No charge is made by the Corporation for water supplied to a water closet.

The cost of emptying the privies and ashpits last year amounted to £2,410, about $1/4\frac{1}{4}$ per head of the population, and divided roughly as follows:—

1,800 privy pails	...	£600.
120 fixed receptacles	...	£40.
200 privy pits	...	£70.
3,000 mixens	...	£1,000.
4,000 ashpits & ashpails		£700.
		<hr/>
Total cost		£2,410.
		<hr/>

The following table shews that the cost last year was one half-penny per head less than the preceding year, and a proof that the work was not neglected is shewn in the orders remaining on the books being only on an average 45 monthly against 106 in 1892. The gradual increase in the cost of removal is to be accounted for (1) by the increased number of privy pails, which are very costly to empty. (2) By the alteration in the size of many of the mixens; when the old style deep pits were in more general use, the contents, which were frequently allowed to remain for ten or twelve months, became consolidated, especially when the pit was allowed to drain into the sewer. (3) There were formerly a large number of cess-pools with an overflow into the drains, and the cess-pool overflowing was only emptied at very rare intervals.

TABLE 15.—Cost of ashpit emptying—

	Cost per head	Monthly unexecuted orders
1878	11 1-10th penny	26
1879	11 9-10ths „	21
1880	12 1-10th „	16
1881	12 5-10ths „	17
1882	10 8-10ths „	20
1883	10 5-10ths „	30
1884	11 7-10ths „	30
1885	12 4-10ths „	22
1886	12 2-10ths „	29
1887	12 5-10ths „	37
1888	12 1-10th „	48
1889	12 8-10ths „	43
1890	13 2-10ths „	59
1891	13 8-10ths „	72
1892	16 8-10ths „	106
1893	16 3-10ths „	45

In the south ward there are 102 houses in the added area whose privies and ashpits are emptied quarterly by a contractor, who is paid 5/- per house yearly. With this exception all the houses in the Borough are dealt with by the Sanitary Department. The staff employed in this work consists on an average of a foreman and twelve men, with ten horses and their drivers, extra men and horses being engaged as occasion arises.

The whole question of cost and of dealing with the refuse of the town is now under the consideration of a Sub-Committee, to whom a special report was submitted by the Medical Officer of Health in November last. Visits were paid in December last to Rochdale, Halifax, Bradford, Leeds, and Huddersfield, where cremators of various types were inspected, and as a result experiments are now being carried on at the pumping station on the sewage farm.

A strong effort has been made to execute a periodical emptying, but in this we are handicapped by the variety of the systems in vogue, and by the great distance the refuse has to be removed.

Each of the carts used for carrying dry ashes in the day time is now provided with a canvas sheet which is drawn over the loaded cart as it goes through the streets. The night-soil carts have also been covered in with a double-hinged wooden cover, and their offensiveness minimised as much as possible.

At the request of the Sanitary Inspector, I asked you in October to allow the men engaged during the night to be supplied with hot coffee, or bovril.—Their foreman designed a box to contain the beverage, with a lamp to warm it; and enamelled cups are placed in the box for each man. The coffee is made at the sanitary offices, and the men I am informed, are exceedingly grateful to the Health Committee for it.

Urinals.

There are in the town nine public Urinals, a number quite inadequate to its size. They are all flushed daily, except upon Sundays, by the scavengers in the Surveyor's department, who carry out their work remarkably well. The daily flushing enables the men to scrape from the inside walls quack advertisements, which are so often found in these places. There is an automatic flushing cistern in each Urinal. There is always a difficulty in finding a suitable position for these conveniences, no one choosing to have one opposite his house. In the event therefore of some of the railway bridges being altered, I would suggest that a Urinal be placed at one or other corner of a bridge wherever practicable.

Examination of Houses.

In November last, public notice was given that any person might have his house examined as to its sanitary condition, free of charge, upon making application to the sanitary department. And already several persons have taken advantage of the offer. My object in issuing this notice was principally with a view to enable new-comers to the town to be made acquainted with the sanitary condition of any house they might contemplate taking.

House-to-house Inspection.

It has only been possible to carry on a house-to-house inspection over a limited area. The Medical Officer of Health only entered upon office on September 3rd, 1893, and many matters at once claimed his attention. With a view to making the inspection of houses as thorough as possible, a form of particulars is carried by the Sanitary Inspector and the Medical Officer of Health, to be filled up by them when making an inspection. The particulars relate to the aspect of the house, building material, nature of sub-soil, distance from surrounding buildings, number of rooms, condition of waste pipes from the sink, lavatory or bath, water closet and ashpit accommodation, distance of such from house, size and condition of back yard, &c., &c. During the last four months of 1893, there were examined, and particulars recorded of eighty-two houses.

Notice to abate Nuisances.

The Sanitary Inspector has latterly, in lieu of serving a legal notice to abate a nuisance, filled up a skeleton letter addressed to the owner of the property affected, pointing out where certain nuisances exist, at the same time suggesting a proper remedy, and proposing that the owner confer either with himself or the Medical Officer of Health on the matter. In the event of no notice being taken of such a letter, a "notice to abate" is sent. It is too soon to decide whether this method of dealing with insanitary conditions will be more effectual than that hitherto adopted, but it has the advantage of proving that we are anxious to *induce* rather than to *compel* property owners to make needed alterations.

Two months before entering upon my duties the Corporation sustained a great loss by the death of their Sanitary Inspector, Mr. Stockton, who had held the office for nineteen years, and was thoroughly conversant with the duties. Mr. Wm. Urquhart, who had been acting as Assistant Inspector since 1892, was elected in December last to the post of Chief Sanitary Inspector. Although I regret not to have had the advantage of the past experience of the late Mr. Stockton, it is only just to record that the work under the present Inspector has been carried on most satisfactorily and energetically in every way. The intimate knowledge too, which he has of the whole town, and of its past history, is of the highest value to a Medical Officer of Health who, a few months since was an absolute stranger to the district.

I cannot conclude this report without an expression of thanks, not only to the Chairman and Members of the Health Committee, but to the Mayor and every Member of the Corporation for the consideration they have shewn to me during my short term of office. I have been able to do little more than prepare the machinery for the working of the department, and I fear in consequence that these pages speak more of work that is to be done than record that of the past.

I have moreover to acknowledge much valuable assistance from the Borough Surveyor (Mr. George Eaton-Shore) and the Assistant Surveyor (Mr. Hedley Grieves), who have revised several pages more particularly relating to their department. I have further had to obtain a great deal of information both from the Town Clerk's, the Borough Accountant's, and the Rate Collector's offices, and had it not been for the readiness with which it was given, it would have been quite impossible to have placed before you many of the previous paragraphs.

I beg to remain,

Mr. Chairman & Gentlemen,

Faithfully yours,

Herbert Jones

Meteorology.

1893	Total rainfall in inches	No. of days on which no rain fell	Prevailing Wind Days								Temperatures	
			N	S	E	W	N-W	N-E	S-W	S-E	Highest in shade	Lowest in shade
January ...	·71	25	3	5	2	10	5	3	2	1		
February	·63	11	1	9	4	5	3	1	3	2		
March ...	·46	22	1	7	2	8	3	..	5	5		
April ...	·36	26	2	2	6	4	5	3	1	7		
May ...	2·80	20	2	5	6	3	6	3	2	4		
June ...	1·19	22	1	6	7	7	6	..	1	1	96	42
July ...	2·11	18	1	4	1	8	5	4	3	5		
August ...	1·61	16	3	6	..	8	5	..	6	3	87	30
September	1·89	13	1	7	1	8	5	1	7	1	76	26
October ...	1·29	17	1	9	..	11	2	..	8	..	63	14
November	·77	18	9	3	3	2	5	2	5	1	55	20
December	2·55	10	..	15	1	4	7	..	3	1	50	14
Total...	16 37	218	25	78	33	78	57	17	46	31		
Average ...	1·36	18										

These returns are from observations made by Mr. George Latimer, Curator of the Queen's Park, Crewe. In addition to the above, during 1894, he will record the earth temperature at one foot and four feet below the level of the ground. The rain gauge is twelve inches above the ground.

TABLE A.

TABLE OF DEATHS during the year 1893, in the Urban Sanitary District of Crewe (area in acres, 2,193 ; population (1891) 32,783) classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics; public institutions being shown as separate localities	Mortality from all causes, at subjoined ages							Mortality from subjoined causes, distinguishing deaths of children under five years of age														Total								
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 & under 25	25 & under 65	65 & upwards	Smallpox	Scarlatina	Diphtheria	Membranous Croup	Fevers				Cholera	Erysipelas	Measles	Whooping Cough	Diarrhoea and Dysentery	Rheumatic Fever		Ague	Phthisis	Bronchitis, Pneumonia, and Pleurisy	Heart Disease	Injuries	All other Diseases		
												Typhus	Enteric or Typhoid	Continued	Relapsing														Puerperal	
East ward.....	149	43	34	7	1	35	29	Under 5... 5 upwards	4	2	...	...	...	...	...	...	8	5	13	...	...	...	...	...	12	...	1	32	77
South ward	196	59	33	9	6	57	32	Under 5... 5 upwards	5	2	...	...	...	...	...	...	4	6	30	...	...	...	...	...	24	...	1	39	72
West ward	276	88	51	18	9	70	40	Under 5... 5 upwards	2	4	...	...	...	...	...	...	16	3	1	...	...	...	...	...	32	...	2	23	92
North ward	67	21	21	4	3	13	5	Under 5... 5 upwards	2	2	...	...	...	...	...	...	1	1	32	...	...	...	...	...	36	...	1	45	104
L. & N.W. Ry. Co.'s Hospital...	6	...	...	...	...	6	...	Under 5... 5 upwards	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	11	...	...	12	42
								Under 5... 5 upwards	5	10	25
								Under 5... 5 upwards	6
Total...	694	211	139	38	19	181	106	Under 5... 5 upwards	9	12	...	...	...	...	...	...	36	14	80	...	...	...	...	...	79	...	3	112	350
								Under 5... 5 upwards	11	7	...	...	...	...	...	...	1	1	4	...	...	...	...	...	80	...	14	149	344
The subjoined numbers have also to be taken into account in judging of the above records of mortality.																														
Deaths occurring within the district among persons not belonging thereto.	2	...	...	...	...	2	...	Under 5... 5 upwards	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2

TABLE B.

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1893, in the Urban Sanitary District of Crewe; classified according to Diseases, Ages, and Localities:—

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities	Population at all Ages		Registered Births	New cases of sickness in each locality, coming to the knowledge of the Medical Officer of Health					Number of such cases removed from their homes in the several localities for treatment in Isolation Hospital			
	Census 1891	Estimated to middle of 1893		Aged under 5 or over 5	Smallpox	Scarlatina	Diphtheria	Enteric or Typhoid	Smallpox	Scarlatina	Diphtheria	Enteric or Typhoid
EAST WARD.....	6,544	7,052	..	Under 5.. 5 upwards	.. 2	1	.. 1	.. 2	.. 2	..	..	..
SOUTH WARD	9,855	11,364	..	Under 5.. 5 upwards	..	16	2	.. 8	..	..	..	..
WEST WARD	12,362	13,274	..	Under 5.. 5 upwards	..	41	1	1	..	..	..	..
NORTH WARD.....	..	3,648	..	Under 5.. 5 upwards	..	14	1	9	..	..	..	..
				Under 5.. 5 upwards	..	48	1	.. 1	..	..	..	..
				Under 5.. 5 upwards	..	3	..	..	..	..	..	..
				Under 5.. 5 upwards	..	1	..	..	..	..	..	..
TOTALS.....	28,761	35,338	1,228	Under 5.. 5 upwards	.. 2	34	4	1	.. 2	..	..	..
				Under 5.. 5 upwards	.. 2	96	3	20	..	..	..	..

NOTES.—1.—The Smallpox Hospital is situated in the west ward.
 2.—A portion of the south ward, and the whole of the north ward, were added to the Borough on November 9th, 1892.
 3.—Notification of Infectious Disease is *not* compulsory.

TABLE C.—Shewing the number of occupants in the one, two, three, and four-roomed houses (Census 1891)—

	One room	Two rooms	Three rooms	Four rooms
Number of occupants	Number of houses	Number of houses	Number of houses	Number of houses
1	7	14	3	27
2	3	10	18	169
3	2	9	20	245
4	....	7	14	295
5	.....	3	9	237
6	.....	2	9	185
7	1	.....	3	128
8	.....	.....	4	81
9	.....	.....	1	61
10	.....	.....	.....	17
11	...	.....	.....	3
12 or more	.....	.....	.....	3

Example.—There were seven houses with one room occupied by one person, three by two persons, two by three persons, and so on.

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TABLE 16.—Classification of Deaths in the Borough of Crewe.

		0-1 Year	1-5	5-15	15-25	25-45	45-65	Over 65	Total. 1893 1892
Class I.—ZYMOTIC DISEASES.									
Order 1.—Miasmatic									
1	Small Pox	10	25	1	..	..	..	..	.. 5
2	Measles	2	7	5	..	..	..	..	.. 3
3	Scarlet Fever .....	..	..	..	..	..	..	..	.. 3
4	Typhus .....	..	1	2	..	..	..	..	.. 9
5	Euteric or Typhoid	1	11	6	..	..	..	..	.. 23
6	Diphtheria	7	7	1	..	..	..	..	.. 8
7	Whooping Cough .....	..	..	..	..	..	..	..	.. 3
8	Infuenza .....	..	..	..	..	..	..	..	.. 3
9	Other Diseases .....	..	..	..	..	..	..	..	.. 84
Order 2.—Diarrhœal									
1	Diarrhœa and Dysentery	65	15	..	1	..	..	3	24
Order 3.—Malarial									
1	Malaria .....	..	..	..	..	..	..	..	.. 3
Order 4.—Venereal									
1	Syphilis	2	..	..	..	..	1	..	.. 5
Order 5.—Septic									
1	Erysipelas	1	1	1	..	..	1	..	.. 4
2	Pyæmia, Septicæmia .....	..	..	..	..	..	..	..	.. 5
3	Puerperal Fever .....	..	..	..	..	..	..	..	.. 2
IL.—PARASITIC DISEASES.									
1	Trush	2	..	..	..	..	..	..	.. 2
III.—DIETIC DISEASES.									
1	Alcoholism .....	..	..	..	..	1	..	..	.. 1
2	Imitation of Infancy	9	..	..	..	..	..	..	.. 6
3	Rickets .....	..	..	..	..	..	..	..	.. 1
IV.—CONSTITUTIONAL DISEASES.									
1	Rheumatic Fever .....	..	..	..	..	1	..	..	.. 4
2	Rheumatism .....	..	..	..	..	..	..	..	.. 1
3	Gout .....	..	..	..	..	..	..	..	.. 1
4	Cancer	13	6	1	3	11	..	7	24
5	Tubercular Peritonitis	3	1	1	..	..	..	..	.. 23
6	Tubercular Meningitis	1	6	..	..	..	..	..	.. 7
7	Hydrocephalus .....	..	2	2	6	14	7	1	25
8	Phthisis .....	..	..	..	..	..	..	..	.. 4
9	Other forms of Tuberculosis .....	..	..	2	..	..	..	..	.. 3
10	Diabetes .....	..	..	..	..	..	..	..	.. 1
11	Anæmia .....	..	..	..	..	..	..	..	.. 1
12	Angina .....	..	..	..	..	..	..	..	.. 16
V.—DEVELOPMENTAL DISEASES.									
1	Premature Birth	17	..	..	..	..	..	..	.. 3
2	Congenital Malformations	3	..	..	..	..	..	..	.. 32
3	Old Age .....	..	..	..	..	..	..	..	.. 34
VI.—LOCAL DISEASES.									
Order 1.—Nervous System									
1	Inflammation of Brain .....	..	..	1	1	1	..	..	.. 12
2	Apoplexy, Cerebral Softening .....	..	..	..	..	..	..	..	.. 20
3	Insanity .....	..	..	..	..	..	..	..	.. 2
4	Epilepsy	17	9	..	..	..	..	..	.. 1
5	Convulsions, Eclampsia .....	..	..	..	..	..	..	..	.. 26
6	Diseases of Spinal Cord .....	..	2	..	..	..	..	..	.. 4
7	Other Diseases .....	..	..	..	..	..	..	..	.. 5
Order 2.—Organs of Special Sense									
1	Ear .....	..	..	..	..	..	..	..	.. 1
Order 3.—Circulatory System									
1	Disease of Heart, Valvular .....	..	..	2	1	1	..	1	.. 5
2	Disease of Heart, Undistinguished .....	..	..	1	..	3	11	8	23
3	Syncope .....	..	..	..	..	..	..	2	.. 2
4	Aneurism .....	..	..	..	..	..	..	..	.. 2
5	Other Diseases of Blood-vessels .....	..	..	..	..	..	..	..	.. 1
Order 4.—Respiratory System									
1	Laryngitis .....	..	2	1	..	..	..	..	.. 1
2	Croup	20	12	3	..	5	15	13	68
3	Bronchitis	25	22	3	4	11	17	8	90
4	Pneumonia .....	..	..	..	..	..	..	1	.. 1
5	Pleurisy	2	..	..	..	..	..	..	.. 2
6	Other Diseases .....	..	..	..	..	..	..	..	.. 3
Order 5.—Digestive System									
1	Dentition	1	3	..	..	1	..	..	.. 4
2	Diseases of Stomach	2	..	..	..	1	2	..	.. 3
3	Enteritis .....	..	..	..	..	..	..	..	.. 3
4	Obstructive Diseases of Intestine .....	..	1	1	1	1	3	..	.. 4
5	Peritonitis .....	..	..	..	..	..	..	..	.. 1
6	Ascites .....	..	..	7	..	..	1	..	.. 1
7	Cirrhosis of Liver .....	..	..	..	..	..	..	..	.. 1
8	Jaundice, &c. ....	..	..	..	..	..	..	1	.. 1
9	Other Diseases .....	..	..	..	..	..	..	..	.. 9
Order 6.—Lymphatic System									
1	Spleen .....	..	..	..	..	1	1	1	.. 3
Order 7.—Glandular System									
1	Bronchocle .....	..	..	..	..	..	..	..	.. 1
2	Adenoid's Disease .....	..	..	..	..	..	..	..	.. 1
Order 8.—Urinary System									
1	Nephritis .....	..	1	..	..	1	2	1	.. 4
2	Bright's Disease .....	..	..	..	..	..	..	..	.. 3
3	Other Diseases .....	..	1	..	..	..	..	..	.. 1
Order 9.—Reproductive System									
1	Male Organs .....	..	..	..	..	..	..	..	.. 1
2	Female Organs .....	..	..	..	..	..	1	..	.. 1
3	Abortion .....	..	..	..	..	1	..	..	.. 1
4	Puerperal Convulsions .....	..	..	1	..	..	..	..	.. 1
5	Placenta Previa, Flooding .....	..	..	..	1	..	..	..	.. 1
6	Other Accidents of Child Birth .....	..	..	..	..	6	..	..	.. 6
Order 10.—Bones and Joints									
1	Caries, Necrosis .....	..	..	1	..	..	..	..	.. 1
2	Arthritis .....	..	..	..	..	..	..	..	.. 1
Order 10.—Integumentary System									
1	Eczema .....	..	..	..	..	..	..	..	.. 1
2	Ulcer of Leg .....	..	..	..	..	..	..	..	.. 2
VII.—DEATHS FROM VIOLENCE.									
Order 1.—Accidents									
1	Suffocation	2	1	..	..	..	..	..	.. 2
2	Burn .....	..	..	..	..	..	3	..	.. 1
3	Other Causes .....	..	..	1	..	4	..	..	.. 29
Order 2.—Homicide									
Order 3.—Suicide									
1	Drowning .....	..	..	..	1	1	..	..	.. 2
2	Poison .....	..	..	..	..	..	..	..	.. 1
VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES.									
1	Dropsy .....	..	2	..	..	1	..	..	.. 2
2	Debility	3	..	..	..	..	..	..	.. 5
3	Marasmus	2	1	..	..	..	..	..	.. 2
4	Tumour .....	..	..	..	..	..	..	..	.. 1
5	Abscess .....	..	..	..	..	..	..	..	.. 1
6	Natural Causes	1	..	..	..	2	..	..	.. 3
Total.....		211	139	38	19	79	102	106	694
		527							527



BOROUGH OF CREWE.

SANITARY DEPARTMENT

General Rules & Precautions to be observed in cases of SCARLET FEVER.

Isolation. On the appearance of SCARLET FEVER at once isolate the patient, by putting him in a room that can be shut off from the rest of the house. The top room of the house is the best, provided it has a fireplace. Remove from the room the carpets, bed-hangings, window-curtains (everything indeed that cannot be washed). Articles made of any woolly material have an especial power of absorbing and retaining the poison of fevers for a very considerable time. In case the carpets, curtains, &c., have been left in the room for some days after the beginning of the illness, they should not be removed, but left to be disinfected with the rest of the room when the illness is over.

Nurse. Let the nurse confine herself as much as possible to the patient, and wear dresses made of washing material. It is convenient to have a light wrapper to wear in the sick-room, and which can be hung on the door on leaving the room. The nurse should never take her meals in the sick-room.

Ventilation. Each patient should have as much space as is contained in a room 10 feet long by 10 feet broad, and 10 feet high. See to there being complete ventilation. Subject to the instructions of your Medical Attendant, open the top and bottom sashes of the window a little, and maintain a good fire; the draught up the chimney carries out all the bad air from the room, pure fresh air coming in to take its place through the windows and other apertures. When sitting by the patient's bedside do not sit between the bed and the fireplace.

Books and Toys. All books, toys, &c., that are in the sick-room, or used by the patient, should be burned at the end of the illness. If application is made to the Sanitary Inspector he can generally supply a few children's picture books and toys.

Washing. All soiled bed-linen, and everything that requires washing, should be placed at once in boiling water, and after being boiled for twenty minutes, washed in the ordinary way. The floor and any flat surfaces, such as shelves or ledges, should be wiped over with a damp rag, the rag being then burned. Where the skin comes off in large flakes these should be burned.

Period of Infection. Scarlet Fever is infectious from the beginning of the illness, and as long as there is either any sore throat, or any peeling of the skin going on. As a rule the infection lasts about six weeks from the time the rash first appears.

A child, though it may not be actually suffering from Scarlet Fever, if exposed to the infection, should not be allowed to go to school, or to be with other children until two weeks have elapsed from the time of exposure.

Anyone exposing himself, or allowing anyone he is in charge of, to be exposed in the public streets, while in the infectious stage of Scarlet Fever, is liable to be fined £5. A fine of £5 can also be imposed upon anyone in a like condition travelling in a cab, omnibus, or train. [See next page.]

Disinfection. Upon application being made to the Sanitary Inspector, he will see that the house is properly disinfected at the close of the illness.

Disinfectants can always be had from the Municipal Offices, Earle Street, between the hours of 9 a.m. and 5-30 p.m.

EXTRACT FROM THE PUBLIC HEALTH ACT, 1875.

SEC. 126.—Any person who —

- (1.) While suffering from any dangerous infectious disorder, wilfully exposes himself without proper precautions against spreading the said disorder in any street, public place, shop, inn, or public conveyance, or enters any public conveyance without previously notifying to the owner, conductor, or driver thereof that he is so suffering ; or
- (2.) Being in charge of any person so suffering, so exposes such sufferer ; or
- (3.) Gives, lends, sells, transmits, or exposes, without previous disinfection, any bedding, clothing, rags, or other things which have been exposed to infection from any such disorder,

shall be liable to a penalty not exceeding five pounds.

It is hoped that all householders will co-operate with the Sanitary Department in their endeavours to lessen the amount of Scarlet Fever in the Borough.

HERBERT JONES,

Medical Officer of Health.

Municipal Offices, Earle Street,
Sept., 1893.



BOROUGH OF CREWE.

SANITARY DEPARTMENT

General Rules & Precautions to be observed in cases of CONSUMPTION (PHTHISIS).

Consumption infectious. It cannot be sufficiently emphasized that Consumption is an infectious disease, that every case takes origin directly or indirectly from a previous case, and that it is a disease from which many people recover.

Chance of recovery increased. This circular is issued quite as much in the interests of those who are consumptive, as of those who may be exposed to the infection, for if the suggestions here made are carried out the chances of recovery will be infinitely increased.

Sources of infection. The chief source of infection is the phlegm. This becomes dry, and either by itself or mixed with other dust may be inhaled by those susceptible to the disease, who are then infected.

The chief modes of infection are—

1. By inhaling the dried phlegm.
2. By using spoons, cups, plates, &c., which have not been sufficiently washed after being used by a consumptive person.
3. By kissing, especially in the case of children.
4. By swallowing the phlegm. A consumptive patient may in this way re-infect himself.

The breath is not considered infective.

Precautions. A consumptive person should not spit on the ground or into an ordinary spittoon, but use—

1. Either a small spitting vessel lined with stiff paper; the paper and its contents being thrown into the fire.
2. Or a small vessel of glass or glazed earthenware, into which is placed sufficient disinfectant solution to well cover the bottom. This disinfectant will be supplied free of cost from the Sanitary Department, Earle Street. The contents of the vessel, with some more disinfectant poured over it, should at least once a day be poured down a drain which communicates with a sewer, and the drain should be at once flushed with two or three good bucketsful of water.

Whenever a spitting vessel is used, after being emptied, it should be boiled in water twenty minutes, in a saucepan kept for the purpose, at least once a week.

3. Or a piece of paper or rag, if it is at once burned.

In case the patient is compelled to spit into his handkerchief, it should as soon as possible be boiled by itself for half-an-hour.

Washing. The linen should be washed separately from that of other persons, and should be previously well boiled.

Eating utensils. All the eating and drinking utensils used should be kept separate from those of other members of the household, and should be kept scrupulously clean.

The discharges from the bowels should be disinfected before being put into the drain, and the drain should be well flushed.

Disinfection by steam. The carpets, curtains, bed-hangings, bedding, &c., of a person suffering from Consumption should be sent to the public disinfector, and the woodwork, walls and ceiling thoroughly disinfected, for which the Sanitary Inspector will make arrangements if applied to. This should be repeated at least every two months, and in the event of a death, immediately after it takes place.

Cleaning of rooms. The cleaning of the rooms of the patient should be carried out in such a manner that little or no dust shall be raised. A damp cloth used for dusting, the floor sprinkled, and the sweepings burned.

Ventilation. The rooms occupied by a consumptive person should have plenty of sunshine, and be well ventilated ; on no account must the chimney be stopped up. The patient should occupy a bed to himself. It is well to avoid an over-crowded room or workshop, or public building, indeed any place in which the air has to be re-breathed.

Milk. Milk that is drunk should be boiled first ; the mixed milk from two or three cows is to be preferred.

A consumptive mother should not suckle her child.

Household pets. Domestic animals, such as cats, who are susceptible to consumption should not be allowed in the house.

HERBERT JONES,

Medical Officer of Health.

Municipal Offices, Earle Street,
February, 1894.

BOROUGH OF CREWE.

NOTICE.

Any person may have the house which he now occupies, or one which he contemplates occupying, examined as regards its sanitary condition, free of charge, upon application being made to the Sanitary Department, Municipal Offices, Earle Street, and information will be given of what, if any, defects are observed.

HERBERT JONES,

Medical Officer of Health.

